

## MODULE SPECIFICATION

### KEY FACTS

|                          |  |
|--------------------------|--|
| Module name              | Introduction to Research Methods and Applied Data Analysis |
| Module code              | HRM001   |
| School                   | School of Health Sciences                                  |
| Department or equivalent | Health Services Research and Management                    |
| UK credits               | 30   |
| ECTS                     | 15   |
| Level                    | 7  |

### MODULE SUMMARY

#### Module outline and aims

The aim of this module is to enable you to develop your theoretical, methodological and research skills to enhance your ability to conduct rigorous research and reach to sound analytical conclusions, which can form the basis for the development of effective service delivery in health and social care organisations.

You will develop a thorough understanding of the principles, theory and epistemology of research and data analysis methods. Equal emphasis is given to the teaching of qualitative and quantitative research methods and study designs.

More importantly, you will be guided and supported to conduct research in practice by developing a pragmatic research proposal for an applied research project.

#### Content outline

The core 7 weeks of the module cover the following:

- An introduction to research (formulating research questions in qualitative and quantitative research)
- The research process (refining research questions, funding, thinking about how to plan and carry out a research project, getting research into practice)
- Searching for evidence (electronic databases, key words, inclusion and exclusion criteria)
- Critical appraisal skills (how to assess the quality of research)
- Writing a literature review
- Ethics of research/research governance (ethical issues, research ethics committees, research governance framework)
- Recognising and evaluating different types of study design
- Choosing, interpreting and reporting analyses
- Quantitative statistics (descriptive statistics, basic comparative parametric & non-parametric statistics, associative statistics),
- Qualitative methods (in-depth interviews and focus groups, using a topic guide, interview techniques, conducting an interview)
- Presentations of research ideas
- On-line research methods training

Students will then choose one of three streams allowing them to cover:

- Advanced statistical analysis (ANOVA, ANCOVA, multiple regression) OR
- Advanced qualitative methods and analysis OR
- In depth systematic review training

## **WHAT WILL I BE EXPECTED TO ACHIEVE?**

**On successful completion of this module, you will be expected to be able to:**

Knowledge and understanding:

- Demonstrate in-depth knowledge of methodological theory in Health Services Research
- Demonstrate confidence in formulating research questions in qualitative and quantitative research projects
- Demonstrate critical awareness of methods and study designs in qualitative and quantitative research
- Recognise and critically appraise the elements of the research process and apply this to writing a pragmatic research proposal
- Have developed a specialist skill set in either quantitative, qualitative or systematic review methodology

Skills:

- Critically assess association of variables and interventions by using quantitative and qualitative research methods
- Critically synthesise data from quantitative and qualitative analysis
- Competently disseminate research plans verbally and in writing

Values and attitudes:

- Have regard for ethical issues relating to research in health and social care settings
- Respect privacy and confidentiality
- Respect the opinions of others and behave with integrity

## **HOW WILL I LEARN?**

You will be taught through lectures and workshop activities, worksheets and mini-labs over 10 weeks: You will attend 2 weekly 3-hour lectures/workshops run on the same day (i.e. one morning and one afternoon session) (60 hours in total). This teaching will be supplemented by self-directed study using worksheets and exercises, which will be made available either via Moodle or via email.

After your lecture, which will be taught either in a large teaching room or in a teaching theatre along with students from other disciplines in the School of Health Sciences, all MSc in Health Services Research students will be convening in a small group to have discipline-specific lab tutorials and workshops. In the discipline-specific labs and workshops you will receive practical, hands-on training on training on all discussed research methods and techniques. This outline enables students from a range of health

sciences to interact inside and outside the classroom, while it supports discipline-specific learning via small group work.

Teaching pattern:

| <b>Teaching component</b>                                  | <b>Teaching type</b>             | <b>Contact hours (scheduled)</b> | <b>Self-directed study hours (independent)</b> | <b>Placement hours</b> | <b>Total student learning hours</b> |
|--|----------------------------------|----------------------------------|--|------------------------|-------------------------------------|
| Introduction to Research Methods and Applied Data Analysis | Lecture                          | 40                               | 120  |                        | 160                                 |
| Introduction to Research Methods and Applied Data Analysis | Discipline-specific Lab/workshop | 20                               | 120  |                        | 140                                 |
| <b>Totals:</b>   |                                  | 60                               | 240  |                        | 300                                 |

## WHAT TYPES OF ASSESSMENT AND FEEDBACK CAN I EXPECT?

### Assessments

The assessments for this module are as follows:

1. An in-class test comprising short answers and multiple choice responses to cover basic knowledge across the range of topics taught. This will constitute 50% of your module mark.
2. An analytic report which may take the form of a 'mini-lab' analysis-based assessment, a qualitative analysis coursework, or a systematic review assignment (depending on which stream you take) . This will constitute 50% of your module mark.

In order to pass the module you must pass each component at 50%.

The Module Mark shall be calculated from the written assignments as follows:

*Assessment pattern:*

| <b>Assessment component</b> | <b>Assessment type</b> | <b>Weighting</b> | <b>Minimum qualifying mark</b> | <b>Pass/Fail?</b> |
|-----------------------------|------------------------|------------------|--------------------------------|-------------------|
| In-class test               | Written Assessment     | 50%              | 50%                            | N/A               |
| Analytic Report             | Written Assessment     | 50%              | 50%                            | N/A               |

### Assessment criteria

Assessment Criteria and Grade-Related Criteria for module assessments will be made available prior to an assessment taking place. More information will be available from the module leader.

### Feedback on assessment

Following an assessment, marks and feedback will be provided in line with the Assessment Regulations and Policy. You will receive your mark followed by your coursework with feedback sheet. Markers will be available to answer queries about the marks and feedback if these are not clear. A selection of all assessments will be internally moderated and sent to the external examiner. All initial marks will be therefore provisional pending external examiner approval and assessment board.

More information on the timing and type of feedback that will be provided for each assessment will be available from the module leader. Marks will usually be available within 3 weeks of hand in.

### Assessment Regulations

The pass mark for the module is 50%. The weighting of the different components can be found above. The Programme Specification contains information on what happens if you fail an assessment component, but in the first instance you should contact the module leader.

## **INDICATIVE READING LIST**

### **Priority Reading**

Aveyard, H (2010) Doing a Literature Review in Health and Social Care: A Practical Guide, Second edition. Oxford, Oxford University Press.

Bowling A. (2009) Research Methods in Health: Investigating Health and Health Services. Third edition. Buckingham, Open University Press.

Pagano R. R. (2009) Understanding statistics in the behavioural sciences. (9th ed). Belmont, CA: Wadsworth/Cengage Learning.

Field, A. (2009) Discovering Statistics using SPSS (3<sup>rd</sup> ed.). London: Sage Publications

Pallant, J. (2010) SPSS Survival Manual: A step by step guide to data analysis using SPSS. (4th ed.). Buckingham: Open University Press.

### **Recommended reading**

Aveyard, H. and Sharp, P. (2009) A Beginner's Guide to Evidence Based Practice in Health and Social Care. Oxford, Oxford University Press.

Bland, M. (2000) An Introduction to Medical Statistics. Oxford, Oxford University Press.

Bryman, A. (2008) Social Research Methods. Third edition. Oxford, Oxford University Press.

Burns, N and Grove, S. (2007). The Practice of Nursing Research. Fifth edition. Philadelphia: W.B. Saunders.

Cresswell, J.W. (2007) Qualitative Inquiry and Research Design. Choosing Among Five Approaches. Second edition. Thousand Oaks, California, Sage

Cresswell, J. (2008) Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Third edition. Thousand Oak, California, Sage.

Cresswell, J.W. and Plano Clark, V.L. (2011) Designing and Conducting Mixed Methods Research. Second edition. Thousand Oak, California, Sage.

Dawes, M. et al (2004) Evidence-based Practice: A Primer for Health Professionals. Oxford, Elsevier.

Denzin, N and Lincoln, Y. (eds) (2005) Handbook of Qualitative Research. Third edition. London, Sage.

De Vaus, D.A. (2002) Surveys in Social Research. London, Routledge.

LoBiondo-Wood, G. and Haber, J. (2009) Nursing Research Methods, Critical Appraisal and Utilisation. Seventh edition. London, Mosby

Melnyk BM and Fineout-Overholt E (2010) Evidence-based Practice in Nursing and Healthcare. A Guide to Best Practice. Second editon. Lippincott Williams and Wilkins, Philadelphia

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#### **Appendix:**

##### **CODES**

| <b>HESA Code</b> | <b>Description</b>                    | <b>Price Group</b>    |
|------------------|---------------------------------------|-----------------------|
| 103              | Nursing and allied health professions | C2                    |
| <b>JACS Code</b> | <b>Description</b>                    | <b>Percentage (%)</b> |
| X210             | Research Skills                       | 100                   |