MD913-20 Design, Analysis and Interpretation of Epidemiological Research

26/27

Department
Warwick Medical School
Level
Taught Postgraduate Level
Module leader
Janet Dunn
Credit value
20
Module duration
1 week
Assessment
100% coursework
Study location
University of Warwick main campus, Coventry

Description

Introductory description

This module will build on the material covered by the module “Epidemiology and statistics” (module leader Neil Raymond). This first module will be a prerequisite unless students can show evidence of equivalent knowledge/expertise. We hope that many students who take this first module will choose the proposed module as an option. We believe this will apply in particular to students on the Masters in Public Health and MSc in Child Health for whom “Epidemiology and Statistics” is a core module.

Module aims

The module aims to give students a systematic understanding of the key issues in the design, statistical analysis and interpretation of the common types of epidemiological study. It is designed to further develop the research skills gained in the existing module “Epidemiology and Statistics”.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

1. issues in the design, analysis and interpretation of case-control studies
2. issues in the design, analysis and interpretation of cohort studies
3. issues in the design, analysis and interpretation of randomized controlled trials
4. issues in the design, analysis and interpretation of trial data meta-analyses
5. other practical issues in common epidemiological study designs (such as survey methods).

Learning outcomes

By the end of the module, students should be able to:

- Demonstrate an understanding of the main theoretical and practical issues in the design, statistical analysis and interpretation of:(1) case-control studies(2) cohort studies(3) randomized controlled trials(4) trial data metaanalyses
- 1. ability to design an epidemiological study to test a specific hypothesis2. ability to critically appraise common epidemiological study designs2. ability to select appropriate statistical techniques for the analysis of results from common epidemiological study designs3. ability to interpret the results of statistical analyses of epidemiological studies
- 1. ability to apply generic epidemiological research methods when studying populations

Indicative reading list

Reading lists can be found in Talis

Subject specific skills

Sound understanding of subject
Critically evaluate
Reflection

Transferable skills

Numeracy
Thinking and problem solving
written communication
oral communication
Teamwork
Organisation & time management
Use of tools and technology
Commercial awareness
Independence and initiative
Adaptability/Flexibility

Study

Study time

Type	Required
Lectures	20 sessions of 1 hour (10%)
Seminars	10 sessions of 1 hour (5%)
Private study	170 hours (85%)
Total	200 hours

Private study description

170 hours of self-directed learning

Costs

No further costs have been identified for this module.

Assessment

You do not need to pass all assessment components to pass the module.

Students can register for this module without taking any assessment.

Assessment group A2

	Weighting	Study time	Eligible for self-certification
Assessment component			
4000 word assignment	100%		Yes (extension)
Reassessment component is the same			

Feedback on assessment

Written feedback will be provided to students in line with WMS PGT standard marking criteria.

Availability

Courses

This module is Core optional for:

- TMHS-B930 MSc in Health Sciences
  - Year 1 of B930 Health Sciences
  - Year 1 of B930 Health Sciences
  - Year 7 of B930 Health Sciences
  - Year 8 of B930 Health Sciences

This module is Optional for:

- Year 1 of TIMA-L981 Postgraduate Social Science Research
- TMDS-B9C2 Postgraduate Taught Health Research
  - Year 1 of B9C2 Health Research
  - Year 1 of B902 Public Health
- Year 1 of TMHS-B902 Public Health

This module is Option list A for:

- Year 1 of TMDS-B9C2 Postgraduate Taught Health Research
- Year 1 of TMHS-B902 Public Health