University of the West of Scotland

Module Descriptor

Session: 2024-25

| Title of Module: Foundations of Quantitative Research Methods | | | | | | | |
|---|--|----------------------|---|--|--|--|--|
| Code: SOCY08022 | SCQF Level: 8 (Scottish Credit and Qualifications Framework) | Credit Points: 20 | ECTS: 10 (European Credit Transfer Scheme) | | | | |
| School: | School of Education & Social Sciences | | | | | | |
| Module Co-ordinator: | D McDonnell | | | | | | |
| | <u> </u> | <u> </u> | | | | | |

Summary of Module

This module introduces you to quantitative research methods within the social sciences. The module is aimed at providing a firm understanding of core concepts and terms associated with quantitative methods, with a view to applying this knowledge in your own work at levels 9 and 10. Through a combination of lectures and hands-on tutorials, students will learn the following:

- Principles and theoretical backgrounds of quantitative methods, key terms and statistical concepts including: randomisation, conceptualising and operationalising social phenomena, levels of measurement
- Conceptual and technical aspects of descriptive statistics (including central tendency, variation, correlations) and statistical inference (including p-values, significance, type 1 and type 2 errors) as used in the social sciences
- Key features of experimental and observational research designs (including questionnaire design, causal effects, sampling frames, methods of sampling, sample size)
- The role of trust and ethics in producing and consuming quantitative research findings

| Module Delivery Method | | | | | | | |
|--------------------------------|---------|-----------------|---------|-------------|------------------------|--|--|
| Face-To- Face | Blended | Fully Online | HybridC | Hybrid 0 | Work-Based Learning | | |
| \boxtimes | | | | | | | |
| See Guidance Note for details. | | | | | | | |

| Campus(es) for Module Delivery | | | | | | | | | | | |
|---|---|---------------|----------------------|-----------------|--------------------------------|----------------------------|----------------------------|--------------|------------------|------|--------------|
| Distan | The module will normally be offered on the following campuses / or by Distance/Online Learning: (Provided viable student numbers permit) (tick as appropriate) | | | | | | | | | | |
| Paisle | y: | Ayı | r: | Dumfr | Dumfries: Lanarkshire: London: | | Distance/Onli Learning: | ne | Other: | | |
| \boxtimes | | | | | | \boxtimes | | | | | Add name |
| Term(| (s) fc | or M | lodule | Delive | ry | | | | | | |
| (Provi | ded ¹ | viab | le stud | ent nur | nber | s permit). | | | | | |
| Term | 1 | | | | Teri | m 2 | | \boxtimes | Term 3 | | |
| These appro | sho pria | ould te le | l take c evel for | ognisa the m | ance odu | | CQF | level desc | criptors and b | e at | t the |
| L1 | | | | | | /ledge and esearch. | d und | derstanding | g of the fundam | nen | tal |
| L2 | | | strate wative res | | relop | ed capac | ities | for designi | ng rigorous pie | ces | s of |
| L3 | Criti | call | y reviev | v and i | nterp | oret publis | hed | quantitative | e social science | e re | esearch |
| L4 | | | | | | | | | | | |
| L5 | | | | | | | | | | | |
| Emplo | oyab | ility | / Skills | and P | erso | nal Deve | lopn | nent Planr | ning (PDP) Ski | lls | |
| SCQF | Hea | adin | ıgs | | | npletion o re skills ir | | s module, tl | here will be an | opp | portunity to |
| | nowledge and nderstanding (K Demonstration of knowledge and understanding of research practices and techniques. | | | | | | | | | | |
| Practice: Applied Knowledge and Understanding Application of knowledge and understanding of research practices and techniques to produce a research proposal Apply understanding derived from module readings, workshop | | | | | | | | osal | | | |

| Co-requisites | Module Code: | Module Title: | | | |
|--|---|--|--|--|--|
| | Other: | | | | |
| | Module Code: Module Title: Introduction to Social Research or equivalent | | | | |
| Pre-requisites: | Before undertaking the undertaken the follow | nis module the student should have ving: | | | |
| Autonomy, Accountability and Working with others | SCQF Level 8 Work with others in a way that recognizes contribution of self and peers. | | | | |
| | Application of technology to facilitate information and data retrieval | | | | |
| Communication, ICT and Numeracy Skills | SCQF Level 8 Communication of complex ideas using appropriate electronic media. | | | | |
| | Identify a range of ap problems | proaches to critically evaluate research | | | |
| Generic Cognitive skills | SCQF Level 8 Presentation and evaluation of information and data that addresses a defined research question. | | | | |
| | assessment in the form of a critical review of published quantitative research | | | | |

^{*}Indicates that module descriptor is not published.

Learning and Teaching

In line with current learning and teaching principles, a 20-credit module includes 200 learning hours, normally including a minimum of 36 contact hours and maximum of 48 contact hours.

| Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below: | Student Learning Hours (Normally totalling 200 hours): (Note: Learning hours include both contact hours and hours spent on other learning activities) |
|--|---|
| Lecture/Core Content Delivery | 12 |
| Tutorial/Synchronous Support Activity | 24 |

| Asynchronous Class Activity | 8 |
|-----------------------------|-----------------|
| Independent Study | 166 |
| | |
| | |
| | |
| | |
| | |
| | Hours Total 200 |

**Indicative Resources: (eg. Core text, journals, internet access)

The following materials form essential underpinning for the module content and ultimately for the learning outcomes:

Bryman A. (2016). Social Research Methods. Oxford: Oxford University Press

de Mesquita, E. B., and Fowler, A. (2021). Thinking clearly with data: a guide to quantitative reasoning and analysis. Princeton: Princeton University Press

Imai, K. (2017). Quantitative social science: an introduction. Princeton: Princeton University Press

Please ensure the list is kept short and current. Essential resources should be included, broader resources should be kept for module handbooks / Aula VLE.

Resources should be listed in Right Harvard referencing style or agreed professional body deviation and in alphabetical order.

(**N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk*) to wait until the start of session for confirmation of the most up-to-date material)

Attendance and Engagement Requirements

In line with the <u>Student Attendance and Engagement Procedure</u>: Students are academically engaged if they are regularly attending and participating in timetabled on-campus and online teaching sessions, asynchronous online learning activities, course-related learning resources, and complete assessments and submit these on time.

For the purposes of this module, academic engagement equates to the following:

On-campus attendance of weekly seminars

Synchronous or asynchronous engagement with weekly lectures

Equality and Diversity

The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: <u>UWS Equality</u>, <u>Diversity and Human Rights Code</u>.

Please ensure any specific requirements are detailed in this section. Module Coordinators should consider the accessibility of their module for groups with protected characteristics..

(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)

Supplemental Information

| Divisional Programme Board | Social Sciences |
|--------------------------------|--|
| Assessment Results (Pass/Fail) | Yes □No ⊠ |
| School Assessment Board | UG Social Sciences - Sociology and Social Policy |
| Moderator | M Sapouna |
| External Examiner | E Matchett |
| Accreditation Details | e.g. ACCA Click or tap here to enter text. |
| Changes/Version Number | 2 |

Assessment: (also refer to Assessment Outcomes Grids below)

Assessment 1 – Research Design (60%). Students will be required to design a piece of quantitative research that addresses a contemporary social science topic. The design must address developing theories and hypotheses, conceptualising and operationalising key factors, and constructing appropriate measurement instruments (e.g., survey questions).

Assessment 2 – Critical Review (40%). Students will be required to critically review and interpret the findings from a published piece of quantitative social science research.

Assessment 3 -

- (N.B. (i) **Assessment Outcomes Grids** for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed.
- (ii) An **indicative schedule** listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Module Handbook.)

Assessment Outcome Grids (See Guidance Note)

| Component 1 | | | | | | | |
|---|----------------------------|---|----------------------------|---------|----------------------------|--|---------------------------------|
| Assessme nt Type (Footnote B.) | Learning Outcome (1) | • | Learning Outcome (3) | Outcome | Learning Outcome (5) | Weighting (%) of Assessment Element | Timetable d Contact Hours |
| Research Design | V | v | | | | 60 | 20 |

| Component 2 | | | | | | | |
|---|----------------------------|---|----------------------------|---------|----------------------------|--|---------------------------------|
| Assessme nt Type (Footnote B.) | Learning Outcome (1) | _ | Learning Outcome (3) | Outcome | Learning Outcome (5) | Weighting (%) of Assessment Element | Timetable d Contact Hours |
| Critical Review | V | | V | | | 40 | 16 |

| Component | 3 | | | | | | |
|---|-----------------------------------|----------------------------|----------------------------|--|----------------------------|--|---------------------------------|
| Assessme nt Type (Footnote B.) | Learning Outcome (1) | Learning Outcome (2) | Learning Outcome (3) | | Learning Outcome (5) | Weighting (%) of Assessment Element | Timetable d Contact Hours |
| | | | | | | | |
| | Combined Total for All Components | | | | | | XX hours |

Change Control:

| What | When | Who |
|--|------------|----------|
| Further guidance on aggregate regulation and application | 16/01/2020 | H McLean |
| when completing template | | |
| Updated contact hours | 14/09/21 | H McLean |
| Updated Student Attendance and Engagement Procedure | 19/10/2023 | C Winter |
| Updated UWS Equality, Diversity and Human Rights Code | 19/10/2023 | C Winter |
| | | |
| Guidance Note 23-24 provided | 12/12/23 | D Taylor |
| General housekeeping to text across sections. | 12/12/23 | D Taylor |
| | | |

Version Number: MD Template 1 (2023-24)