



Module Specification

Research Methodology and Statistics

Version: 2021-22, v1.0, 09 Jun 2021

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Part 1: Information

Module title: Research Methodology and Statistics

Module code: USSJQB-15-M

Level: Level 7

For implementation from: 2021-22

UWE credit rating: 15

ECTS credit rating: 7.5

Faculty: Faculty of Health & Applied Sciences

Department: HAS Dept of Applied Sciences

Partner institutions: NHS Blood and Transplant

Delivery locations: Frenchay Campus

Field: Applied Sciences

Module type: Standard

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: Yes

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: This module will introduce students to the research design process and selection and implementation of appropriate statistical analysis, required for an MSc project. The module will include the essential components of project design and management, including formulation of research hypothesis, assessment of existing literature, experimental design and analysis and dissemination of results. The module will develop skills in scientific writing and statistical analysis.

Features: Not applicable

Educational aims: The aim of this module will be to introduce students to the scientific research process using examples from the transfusion and transplantation sector to prepare students to undertake their own MSc project.

Outline syllabus: Statistics, including for example the general principles of selecting appropriate data analysis method, and presentation of appropriate data.

Literature searching and evidence hierarchy (including online search engines)

Scientific writing, including for example;

Review and critical appraisal of scientific literature and evidence-based practice

Report writing

Writing for publication

Grant applications

Research design, hypothesis and data management

Project management

Research governance, for example including;

Ethics (including clinical research)

Intellectual property (IP)

Good manufacturing practice (GMP) and health and safety

Research communication and dissemination and the peer-review process

Reflective learning

Part 3: Teaching and learning methods

Teaching and learning methods: Lectures:

This module will incorporate an online lecture series introducing each of the topics;

each section will provide the core knowledge that informs good research practice. Guided reading and interactive self-directed learning including quizzes and exercises will be provided in support of lectures and will direct the student to both preparative and supplementary information sources.

Tutorials:

Lectures will be followed by supporting tutorials or workshops to provide a collaborative space for interactive discussion. Tutorials will also help inform and prepare students for the assessments.

Module Learning outcomes:

MO1 Critically evaluate approaches for the analysis of published scientific research and demonstrate Masters level scientific writing skills.

MO2 Demonstrate an advanced knowledge of research design and methodology.

MO3 Demonstrate an understanding of the role of project, time and self management in the success of a research project.

Hours to be allocated: 150

Contact hours:

Independent study/self-guided study = 114 hours

Face-to-face learning = 36 hours

Total = 150

Reading list: The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://rl.talis.com/3/uwe/lists/02D127C1-4317-F02C-1C15-28970094AF4A.html?lang=en-GB&login=1) via the following link <https://rl.talis.com/3/uwe/lists/02D127C1-4317-F02C-1C15-28970094AF4A.html?lang=en-GB&login=1>

Part 4: Assessment

Assessment strategy: There are two pieces of assessment; a written critical appraisal of published peer-reviewed scientific research (Component B) and a research proposal (Component A).

The first assessment will consist of a critical assessment of published peer-reviewed scientific research on a relevant subject. Students will be provided with the research publications for appraisal and a list of required aspects of the research that are to be assessed, e.g. data handling, ethics, appropriateness of methodology, reliability of conclusions, etc.

The second assessment builds on the first. Students will be required to undertake independent research on an area of their choosing within a relevant clinical field and formulate a succinct research proposal. Mid-point module formative feedback will be given on their proposal.

Assessment components:

Written Assignment - Component A (First Sit)

Description: A research proposal based on a subject identified by the student (1500 words)

Weighting: 60 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3

Written Assignment - Component B (First Sit)

Description: A critical review of published research (1000 words)

Weighting: 40 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2

Written Assignment - Component A (Resit)

Description: A research proposal based on a subject identified by the student (1500 words)

Weighting: 60 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3

Written Assignment - Component B (Resit)

Description: A critical review of published research (1000 words)

Weighting: 40 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Applied Transfusion and Transplantation Science [Sep][FT][Frenchay][1yr] MSc
2021-22

Applied Transfusion and Transplantation Science [Sep][PT][Frenchay][2yrs] MSc
2021-22