

Module specification

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Refer to the module guidance notes for completion of each section of the specification.

Module code	SCI525
Module title	Research Methods: Theory and Practice
Level	5
Credit value	20
Faculty	FAST
Module Leader	Dr Amiya Chaudhry
HECoS Code	100344
Cost Code	GAFS

Programmes in which module to be offered

Programme title	Is the module core or option for this programme
BSc (Hons) Forensic Science	Core
BSc (Hons) Biochemistry	Core
BSc (Hons) Biomedical Science	Core

Pre-requisites

None

Breakdown of module hours

Learning and teaching hours	10 hrs
Placement tutor support	0 hrs
Supervised learning e.g. practical classes, workshops	20 hrs
Project supervision (level 6 projects and dissertation modules only)	0 hrs
Total active learning and teaching hours	30 hrs
Placement / work based learning	170 hrs
Guided independent study	0 hrs
Module duration (total hours)	200 hrs

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Initial approval date	13/03/2018
With effect from date	01/09/2018
Date and details of revision	14/10/20 Addition of BSc Biochemistry programme 21/04/21 Addition of BSc Biomedical Science programme
Version number	3

Module aims

To enable students to develop critical thinking and problem-solving skills in a research context. Prepare for undertaking a research project.

Module Learning Outcomes - at the end of this module, students will be able to:

1	Examine relationships between theory and practice in undertaking research
2	Discuss the relative merits and applicability of various approaches to research design; data collection and analysis, and the concepts which underpin such approaches.
3	Discuss the ethical issues and Glyndwr University procedures associated with conducting research.
4	Reflect upon own experience of carrying out a small scale research project.

Assessment

Indicative Assessment Tasks:

Portfolio on small scale research project (20 hours), to include:

- A project plan (30% - 1500 words);
- A final project report a project to include reflection (50% -2500 words)
- A poster (20%).

Students will:

- (1) Offer a rationale as to why specific research tools have been used;
- (2) Provide a critical evaluation of the advantages and limitations of these research tools;
- (3) Reflect upon their own experience of carrying out a small scale research project.

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
1	1- 4	Portfolio	100%

Derogations

N/A

Learning and Teaching Strategies

Lectures and tutorials will be supported by online provision.

Laboratory based mini projects will be 20 hours long. Directed study tasks will enable students to explore methods most applicable to their area of research.

Indicative Syllabus Outline

- Approaches to research (e.g. quantitative and qualitative methods)
Objectivity/subjectivity and research bias, validity and reliability
- Conducting literature research
- Undertaking small-scale research projects
- Analysing and presenting research data
- Ethical issues and Glyndŵr University procedures associated with conducting research

Indicative Bibliography:

Please note the essential reads and other indicative reading are subject to annual review and update.

Essential Reads

Dean, J.R., et al. (2017). *Practical Skills in Chemistry*. 4th ed. Harlow: Pearson

Jones, A., et al. (2016). *Practical Skills in Biology*. 6th ed. Harlow: Pearson

Other indicative reading

Langford, R. et al. (2018). *Practical Skills in Forensic Science*. 3rd ed. Harlow: Pearson

Bell, J. and Waters, S. (2014). *Doing Your Research Project: A Guide for First-time Researchers*. 6th ed. Berkshire: Open University Press.

Employability skills – the Glyndŵr Graduate

Each module and programme is designed to cover core Glyndŵr Graduate Attributes with the aim that each Graduate will leave Glyndŵr having achieved key employability skills as part of their study. The following attributes will be covered within this module either through the content or as part of the assessment. The programme is designed to cover all attributes and each module may cover different areas. [Click here to read more about the Glyndwr Graduate attributes](#)

Core Attributes

Engaged
Creative
Enterprising
Ethical

Key Attitudes

Commitment
Curiosity
Resilience
Confidence
Adaptability

Practical Skillsets

Digital Fluency

Organisation

Leadership and Team working

Critical Thinking

Emotional Intelligence

Communication