

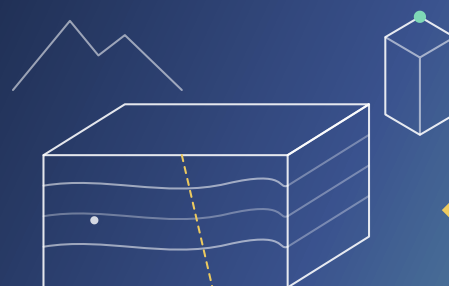
Module code

SPG-3201

Type of module

Undergraduate: Geosciences – Major Core

Research Project



Modular credits

8

Total student
engagement

112 hours

Prerequisite

None

Anti-requisite

None

Aims

To advance students' skills in independent research, critical thinking, and communication through the provision of practical experience in developing, designing, conducting, critically analysing, and presenting geological research.

Module learning outcomes (MLO)

On successful completion of this module, a student will be expected to be able to:

MLO 1

Conduct a comprehensive review of scientific literature to identify research problems and to develop a coherent research framework to frame the proposal.

MLO 2

Design and meticulously plan to execute the research proposal, including methodology, resources, and timeline.

MLO 3

Implement appropriate research methods and execute experiments and field data collection in a safe and effective way.

MLO 4

Analyse, interpret, and evaluate data and findings in relation to scientific concepts and the study design.

MLO 5

Communicate research outcomes effectively through written final year project thesis and oral presentations, ensuring compliance with ethical standards and sustainability practices.

Module contents

Introduction to scientific research	Literature review and background of the research	Research design and planning
Research proposal	Data collection, analysis and interpretation	Scientific writing and reporting of results
Research ethics and sustainability	Critical evaluation and reflection	Final Year Project thesis submission and oral presentation

Assessment

0%

Examination

100%

Coursework

10%	Written reports* 40%	Seminar presentation* 25%	Viva voce* 25%
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■ Supervisor Assessment — 10% ■ Written reports* — 40% ■ Seminar presentation* — 25% ■ Viva voce* — 25%

Formative assessment

Weekly discussion and feedback

Summative assessment

COMPONENT	WEIGHTING
Examination	0%
Coursework	100%
Individual	100%
Supervisor Assessment	10%
Written reports*	40%
Seminar presentation*	25%
Viva voce*	25%

*Assessed by at least two examiners other than the supervisors

Graduate attributes and skills

Programme learning objectives (PLO) addressed

1	PLO 1 (Fundamental Theoretical Knowledge in Geosciences)	2	PLO 2 (Application of Scientific Methods and Data Analysis)
3	PLO 3 (Integrated Laboratory, Field, and Technical Skills)	4	PLO 4 (Critical Thinking and Problem-Solving Skills)
5	PLO 5 (Sustainability and Responsible Practice)	6	PLO 6 (Communication and Collaboration Skills)
7	PLO 7 (Independent Learning and Professional Development)		

Sustainability concept addressed

9	SDG 9 Industry, Innovation and Infrastructure
11	SDG 11 Sustainable Cities and Communities
12	SDG 12 Responsible Consumption and Production

Digital skills/software used (not limited to)

- Microsoft Office software
- Numerical Modelling Software Geostudio (SeisImager, Oasis montaj, Geosoft, GM-SYS, RES2DINV, ArcGIS package, GeoMap App. Petrel, Seismic Explorer)
- Application software (e.g. Web browsers, ImageJ/Fiji, statistical programs, public databases)
- eLearning platforms (e.g. CANVAS, MS Teams, Zoom)
- Reference management (e.g. Mendeley, EndNote, Zotero).
- Notion (Gen) AI, Microsoft Word, Microsoft Excel, QGIS, Video Editing Software

Micro-credentialling option

No

Stackable towards GenBESTARI Undergraduate Degree Programme or other relevant Lifelong Learning Programmes

No

Document details

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