

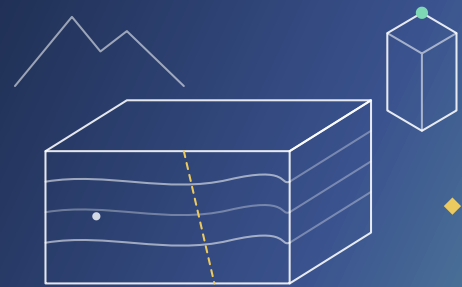
Module code

**SPG-1203**

Type of module

**Undergraduate: Geosciences – Major Core**

# Introduction to Geology



|                                        |                                                        |                                        |                                          |
|----------------------------------------|--------------------------------------------------------|----------------------------------------|------------------------------------------|
| <p>Modular credits</p> <p><b>4</b></p> | <p>Total student engagement</p> <p><b>56</b> hours</p> | <p>Prerequisite</p> <p><b>None</b></p> | <p>Anti-requisite</p> <p><b>None</b></p> |
|----------------------------------------|--------------------------------------------------------|----------------------------------------|------------------------------------------|

## Aims

To introduce students to the fundamentals of geosciences, focussing on Earth's structure, materials and dynamic processes. Students will explore rock and mineral formation, natural resources, tectonic and hydrogeological systems, fossils, and natural hazards such as earthquakes and volcanoes, linking Earth systems to human society.

## Module learning outcomes (MLO)

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

### MLO 1

Apply geological knowledge in classroom and online assignments.

### MLO 2

Formulate and test hypotheses to explain the behaviour and properties of Earth materials and processes.

### MLO 3

Analyse data in practical sessions and apply theoretical concepts to real-world geological scenarios.

### MLO 4

Use geoscience knowledge to evaluate and propose solutions for sustainable resource management and environmental challenges.

## MLO 5

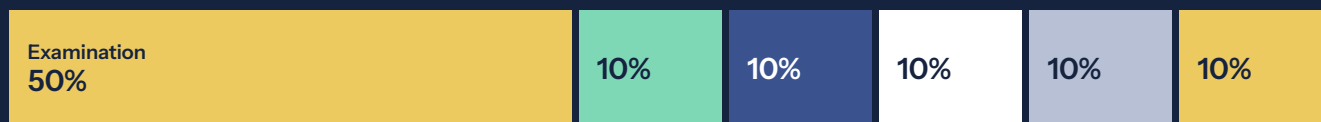
Assess the influence of geological processes on global issues such as climate change and natural hazards.

## Module contents

|                                                                        |                                                                                                  |                                                                                                            |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Introduction to Geology                                                | Origin of the Universe, Solar System and Earth                                                   | Earth's structure and processes, rock forming minerals, rock-types, plate tectonics and their consequences |
| Fossil and its preservation, dating and geologic time scale            | Weathering, wind, desert and coastal processes, landslides, mass wasting and disaster mitigation | Earth Resources and sustainability                                                                         |
| Hydrogeologic systems covering running water, groundwater and glaciers | Sustainable water management and conservation                                                    |                                                                                                            |

## Assessment

**50%** Examination  
**50%** Coursework



■ Examination — 50%   ■ Weekly assignment — 10%   ■ Weekly practicals — 10%   ■ Practical exam — 10%  
■ Class tests — 10%   ■ Group assignment — 10%

| Formative assessment                      | Summative assessment |           |
|-------------------------------------------|----------------------|-----------|
| Weekly tutorials, discussion and feedback | COMPONENT            | WEIGHTING |
|                                           | Examination          | 50%       |
|                                           | Coursework           | 50%       |
|                                           | Individual           | 40%       |
|                                           | Weekly assignment    | 10%       |
|                                           | Weekly practicals    | 10%       |
|                                           | Practical exam       | 10%       |
|                                           | Class tests          | 10%       |
|                                           | Group                | 10%       |
|                                           | Group assignment     | 10%       |

## Graduate attributes and skills

### Programme learning objectives (PLO) addressed

|   |                                                           |   |                                                      |
|---|-----------------------------------------------------------|---|------------------------------------------------------|
| 1 | PLO 1 (Fundamental Theoretical Knowledge in Geosciences)  | 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

|   |                                   |
|---|-----------------------------------|
| 4 | SDG 4 Quality Education           |
| 6 | SDG 6 Clean Water and Sanitation  |
| 7 | SDG 7 Affordable and Clean energy |

### Digital skills/software used (not limited to)

|                                                                     |
|---------------------------------------------------------------------|
| Application software (e.g. Microsoft Word, Microsoft Office, Excel) |
| Organisational tools (e.g. Outlook Calendar)                        |
| File sharing platforms (OneDrive, Spreadsheets, Google Docs)        |

|                                          |                                                                                                                         |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Micro-credentialling option<br><b>No</b> | Stackable towards GenBESTARI Undergraduate Degree Programme or other relevant Lifelong Learning Programmes<br><b>No</b> |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|

### Document details

Office **ODVCE**    Document date **23 June 2026**    Status **New**    Approval **GBF (12/02/2006)**