| Module code | SG-2403 | | | |
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| **Module Title** | Environmental Aspects of Earth Sciences | | | |
| **Degree/Diploma** | Bachelor of Science (Geology) | | | |
| **Type of Module** | Breadth | | | |
| **Modular Credits** | 4 | **Total student Workload** | 10 | hours/week |
| | | **Contact hours** | 6 | hours/week |
| **Prerequisite** | None | | | |
| **Anti-requisite** | None | | | |

**Aims**

The module highlights the dependence of humans and all organisms from the Earth resources. Students will be able to assess the potential hazard from exploitation of industrial minerals and ores, to propose methods for environmental protection and restoration, to assess the risk of toxic mineral and chemical elements on human health, to identify the meaning of and to describe both renewable and non-renewable resources, to evaluate the economic value or Earth resources and to propose methods for the elimination of environmental impacts from human activities.

**Learning Outcomes**

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

| Lower order : | 30% | - understand global geological hazards |
|---|---|---|
| | | - understand the multidisciplinary nature of environmental studies |
| Middle order : | 50% | - evaluate the impact from exploitation of industrial minerals and ores |
| | | - propose methods for environmental protection and restoration |
| | | - identify and to describe both renewable and non-renewable resources |
| | | - establish links between causes and feedbacks in environmental systems |
| Higher order: | 20% | - to appraise the risk of toxic minerals and elements on human health |
| | | - work both independently and in groups following protocols |
| | | - increase their awareness for Environmental issues |

**Module Contents**

- Industrial minerals and rocks and impacts from their exploitation (e.g. acid mine drainage)
- Building and ornamental stones in monuments and contemporary constructions
- Dangerous minerals and toxic elements and impacts on the environment and human health
- Renewable and non-renewable energy resources
- The hydrologic, oxygen, carbon and sulphur cycles
- Acidification of oceans

| **Assessment** | Formative assessment | Practical tests, assignments and feedback |
|---|---|---|
| | Summative assessment | Examination: 50% |
| | | Coursework:  50% |
| | | - 3 class tests (30%) |
| | | - 1 group project (20%) |