



MODULE SPECIFICATION

| Part 1: Information | | | |
|---------------------------|--|--------------------|--|
| Module Title | Economic Geology | | |
| Module Code | UBGMNP-15-3 | Level | Level 6 |
| For implementation from | 2019-20 | | |
| UWE Credit Rating | 15 | ECTS Credit Rating | 7.5 |
| Faculty | Faculty of Environment & Technology | Field | Geography and Environmental Management |
| Department | FET Dept of Geography & Environmental Mgmt | | |
| Module type: | Standard | | |
| Pre-requisites | None | | |
| Excluded Combinations | None | | |
| Co- requisites | None | | |
| Module Entry requirements | None | | |

| Part 2: Description |
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| <p>Features: Module Entry Requirements: Students must have 60 credits at Level 2</p> <p>Educational Aims: See Learning Outcomes</p> <p>Outline Syllabus: Genetic classification of ore and mineral deposits. Ore formation: magmatic, residual, sedimentary systems. Metamorphic ore deposits. Economic importance of metal deposits. Industrial minerals, aggregates, salt. Fossil energy: coal, oil and gas, formation and exploitation. Environmental aspects of exploitation of mineral and fossil energy resources.</p> <p>Teaching and Learning Methods: Scheduled learning on this module includes lectures, demonstrations and practical classes. Local fieldwork sessions will aid knowledge and skills development</p> <p>Independent learning includes hours engaged with essential reading, completion of practical work, assignment preparation and completion. These sessions constitute an average time as indicated below.</p> |

STUDENT AND ACADEMIC SERVICES

Activity (Hours)

Contact time (lectures, field and laboratory sessions) (36)

Assimilation, development of knowledge and independent reading (65)

Exam preparation (24)

Coursework preparation (25)

Total study time (150)

Students will receive, on average, 3 hours contact time per week. This will be predominantly in the form of lectures that will cover the principles and processes related to ore-forming minerals and hydrocarbon resources. There will be practical sessions to enable students to revise and improve their recognition skills and knowledge of the most common economic minerals plus map and graphics work to introduce some of the principles of and techniques used in hydrocarbon exploration.

Some sessions will take the form of tutorials for students to discuss site interpretation and environmental aspects. There may also be local fieldwork or site visits. One-to-one support will be provided during practical sessions and via email.

Part 3: Assessment

Summative assessment:

Component A – Examination (1 hour). Learning outcomes 1-5.

Written examination based on a choice of seen questions.

This will assess students' ability to research academic literature and apply it to interpretation of ore-forming or hydrocarbon reservoir processes and exploitation.

Students will be able to demonstrate their understanding of key processes and discuss environmental impacts of exploitation.

Component B – Essay (1500 words). Learning outcomes 1-5.

Students will be able to demonstrate that they can construct an argument and support it critically with references from academic literature.

The essay will assess the students' understanding and ability to analyse and synthesis information.

Formative work:

Formative work will be set weekly during practical and tutorial sessions for students' self assessment. Students will receive preparation exercises including discussions during tutorials for the summative assessment.

| First Sit Components | Final Assessment | Element weighting | Description |
|----------------------------------|------------------|-------------------|--|
| Written Assignment - Component B | | 50 % | Essay (1500 words) |
| Examination - Component A | ✓ | 50 % | Written examination based on choice of seen questions (1 hour) |
| Resit Components | Final Assessment | Element weighting | Description |
| Written Assignment - Component B | | 50 % | Essay (1500 words) |
| Examination - Component A | ✓ | 50 % | Written examination based on choice of seen questions (1 hour) |

STUDENT AND ACADEMIC SERVICES

| Part 4: Teaching and Learning Methods | | | | | | | | | | | | | | | | | |
|--|---|---------------------------------|------------------|---|-----|--|-----|--|-----|--|-----|---|-----|------------------------------|-----|------------------------|-----|
| Learning Outcomes | <p>On successful completion of this module students will achieve the following learning outcomes:</p> <table border="1"> <thead> <tr> <th style="text-align: left;">Module Learning Outcomes</th> <th style="text-align: left;">Reference</th> </tr> </thead> <tbody> <tr> <td>Review and explain the range of ore-forming processes and the systems that generate fossil fuels.</td> <td>MO1</td> </tr> <tr> <td>Identify and interpret the global locations of mineral and fossil energy resources</td> <td>MO2</td> </tr> <tr> <td>Critically evaluate the impact of mineral and fossil fuel exploitation</td> <td>MO3</td> </tr> <tr> <td>Produce coherent written arguments that discuss sustainable and environmentally responsible management of economic resources</td> <td>MO4</td> </tr> <tr> <td>Demonstrate independent engagement with academic literature</td> <td>MO5</td> </tr> </tbody> </table> | Module Learning Outcomes | Reference | Review and explain the range of ore-forming processes and the systems that generate fossil fuels. | MO1 | Identify and interpret the global locations of mineral and fossil energy resources | MO2 | Critically evaluate the impact of mineral and fossil fuel exploitation | MO3 | Produce coherent written arguments that discuss sustainable and environmentally responsible management of economic resources | MO4 | Demonstrate independent engagement with academic literature | MO5 | | | | |
| Module Learning Outcomes | Reference | | | | | | | | | | | | | | | | |
| Review and explain the range of ore-forming processes and the systems that generate fossil fuels. | MO1 | | | | | | | | | | | | | | | | |
| Identify and interpret the global locations of mineral and fossil energy resources | MO2 | | | | | | | | | | | | | | | | |
| Critically evaluate the impact of mineral and fossil fuel exploitation | MO3 | | | | | | | | | | | | | | | | |
| Produce coherent written arguments that discuss sustainable and environmentally responsible management of economic resources | MO4 | | | | | | | | | | | | | | | | |
| Demonstrate independent engagement with academic literature | MO5 | | | | | | | | | | | | | | | | |
| Contact Hours | <table border="1"> <thead> <tr> <th colspan="2">Independent Study Hours:</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Independent study/self-guided study</td> <td style="text-align: center;">114</td> </tr> <tr> <td style="text-align: center;">Total Independent Study Hours:</td> <td style="text-align: center;">114</td> </tr> <tr> <th colspan="2">Scheduled Learning and Teaching Hours:</th> </tr> <tr> <td style="text-align: center;">Face-to-face learning</td> <td style="text-align: center;">36</td> </tr> <tr> <td style="text-align: center;">Total Scheduled Learning and Teaching Hours:</td> <td style="text-align: center;">36</td> </tr> <tr> <td>Hours to be allocated</td> <td style="text-align: center;">150</td> </tr> <tr> <td>Allocated Hours</td> <td style="text-align: center;">150</td> </tr> </tbody> </table> | Independent Study Hours: | | Independent study/self-guided study | 114 | Total Independent Study Hours: | 114 | Scheduled Learning and Teaching Hours: | | Face-to-face learning | 36 | Total Scheduled Learning and Teaching Hours: | 36 | Hours to be allocated | 150 | Allocated Hours | 150 |
| Independent Study Hours: | | | | | | | | | | | | | | | | | |
| Independent study/self-guided study | 114 | | | | | | | | | | | | | | | | |
| Total Independent Study Hours: | 114 | | | | | | | | | | | | | | | | |
| Scheduled Learning and Teaching Hours: | | | | | | | | | | | | | | | | | |
| Face-to-face learning | 36 | | | | | | | | | | | | | | | | |
| Total Scheduled Learning and Teaching Hours: | 36 | | | | | | | | | | | | | | | | |
| Hours to be allocated | 150 | | | | | | | | | | | | | | | | |
| Allocated Hours | 150 | | | | | | | | | | | | | | | | |
| Reading List | <p><i>The reading list for this module can be accessed via the following link:</i></p> <p>https://uwe.rl.talis.com/index.html</p> | | | | | | | | | | | | | | | | |

| Part 5: Contributes Towards |
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| This module contributes towards the following programmes of study: |