

|                         |   |
|-------------------------|---|
| Degree Programme        | <b>BSc and MEarthSci Earth and Planetary Science</b>  |
| Pathway:                | <b>Energy and Resources</b>   |
| Academic year of study: | <b>2024-25</b>  |
| Contact:                | If you have any questions about this structure, please contact <a href="mailto:sons.programmes@manchester.ac.uk">sons.programmes@manchester.ac.uk</a> |

| <b>First Year</b>   |   |            |
|---|---|------------|
| <b>All First Year Students have a combined 1<sup>st</sup> year schedule of compulsory units as below.</b> |   |            |
| You will automatically be enrolled on these units by the Curriculum and Programmes Team.                  |   |            |
| <b>EART11100</b>  | Understanding the Earth                       | 40 Credits |
| <b>EART11200</b>  | The Natural Scientist's Toolkit               | 40 Credits |
| <b>EART11300</b>  | Practical and Professional Skills Development | 40 Credits |
| <b>EART11111</b>  | Welcome Week Activity                         | 0 Credits  |
| <b>EART10020</b>  | PASS  | 0 Credits  |
| <b>EART19040</b>  | Aspire – Your Future                          | 0 Credits  |

## Second Year

### Core Units

You will automatically be enrolled on these units by the Curriculum and Programmes Team.

#### Programme core units

|                  |  |            |
|------------------|--|------------|
| <b>EART29200</b> | Professional Development and Project Preparation | 10 credits |
| <b>EART28101</b> | Field Course: Introduction to Geological Mapping | 10 credits |

#### Pathway core units

|                  |                                      |            |
|------------------|--------------------------------------|------------|
| <b>EART22201</b> | Igneous Minerals and Processes       | 10 credits |
| <b>EART26001</b> | Energy and Resources                 | 10 credits |
| <b>EART24001</b> | Geological Maps                      | 10 credits |
| <b>EART26201</b> | Principles of Geochemistry           | 10 credits |
| <b>EART27201</b> | Sedimentary Rocks and Fossils        | 10 credits |
| <b>EART25102</b> | Advanced Geological Field Techniques | 10 credits |
| <b>EART28202</b> | Structural Geology                   | 10 credits |
| <b>EART29102</b> | Geospatial Techniques                | 10 credits |

#### Optional Units

You must select ONE or TWO of the following optional units

|                  |   |            |
|------------------|---|------------|
| <b>EART21102</b> | Environmental Microbiology  | 10 credits |
| <b>EART23202</b> | Interpreting the Stratigraphic Record: From Surface to Subsurface | 10 credits |
| <b>EART24202</b> | Metamorphic Minerals and Processes                                | 10 credits |
| <b>EART28002</b> | Environmental Chemistry 2: the Biogeochemical Cycles              | 10 credits |
| <b>GEOG21512</b> | Geomorphology   | 20 credits |

10-20 credits: One 10 credit EART unit or up to 20 credits of a single UCIL/Language unit

## Third Year

### Core Units

You will automatically be enrolled on these units by the Earth Support Team.

#### Programme core units (excluding Geology pathway)

|                  |  |            |
|------------------|--|------------|
| <b>EART31100</b> | Independent project in Earth and Planetary Science | 30 credits |
|------------------|--|------------|

#### Pathway core units

|                  |  |            |
|------------------|--|------------|
| <b>EART32301</b> | Tectonics in Earth's Oceans and Continents | 10 credits |
|------------------|--|------------|

|                  |                        |            |
|------------------|------------------------|------------|
| <b>EART36101</b> | Geophysical Techniques | 10 credits |
|------------------|------------------------|------------|

|                  |   |            |
|------------------|---|------------|
| <b>EART38202</b> | Resource Project Case Studies + Life Cycles | 10 credits |
|------------------|---|------------|

|                  |   |            |
|------------------|---|------------|
| <b>EART33001</b> | Analytical Techniques in Earth and Environmental Sciences | 10 credits |
|------------------|---|------------|

|                  |                      |            |
|------------------|----------------------|------------|
| <b>EART39302</b> | Field Course (Italy) | 10 credits |
|------------------|----------------------|------------|

### Optional Units

You must select FOUR of the following optional units

|                  |  |            |
|------------------|--|------------|
| <b>EART31302</b> | Sedimentary Basins and the Source to Sink System | 10 credits |
|------------------|--|------------|

|                  |   |            |
|------------------|---|------------|
| <b>EART33201</b> | Quantitative Sedimentology: An Experimental Perspective | 10 credits |
|------------------|---|------------|

|                   |           |            |
|-------------------|-----------|------------|
| <b>EART34102†</b> | Geoenergy | 10 credits |
|-------------------|-----------|------------|

|                  |  |            |
|------------------|--|------------|
| <b>EART34201</b> | Chemical Evolution of the Earth's Interior | 10 credits |
|------------------|--|------------|

|                   |                               |            |
|-------------------|-------------------------------|------------|
| <b>EART35101†</b> | Hydrogeology and Geomechanics | 10 credits |
|-------------------|-------------------------------|------------|

|                  |                        |            |
|------------------|------------------------|------------|
| <b>EART34001</b> | Dinosaur Palaeobiology | 10 credits |
|------------------|------------------------|------------|

|                  |             |            |
|------------------|-------------|------------|
| <b>EART34302</b> | Volcanology | 10 credits |
|------------------|-------------|------------|

|                  |                    |            |
|------------------|--------------------|------------|
| <b>EART36002</b> | Climate and Energy | 10 credits |
|------------------|--------------------|------------|

|                   |                                   |            |
|-------------------|-----------------------------------|------------|
| <b>EART37002†</b> | Diagenesis of Sedimentary Systems | 10 credits |
|-------------------|-----------------------------------|------------|

|                  |                                |            |
|------------------|--------------------------------|------------|
| <b>MATS32802</b> | Resources for the Modern World | 10 credits |
|------------------|--------------------------------|------------|

10-20 credits : One 10 credit EART unit or up to 20 credits of a single UCIL/Language unit

#### PLEASE NOTE:

When selecting your course units you must ensure you enrol on:

- 120 credits in total (including any core units)
- A minimum of 50 credits per semester
- A maximum of 70 credits per semester

## MEarthSci (All pathways)

**2<sup>nd</sup> and 3<sup>th</sup> year:** Same as regular BSC programmes

| <b>Fourth Year</b>   |   |            |
|--|---|------------|
| <b>Core Units</b>  |   |            |
| You will automatically be enrolled on these units by the Earth Support Team. |   |            |
| <b>EART44440</b>   | Research Project in Earth and Planetary Sciences        | 60 credits |
| <b>EART40012</b>   | Integrated Earth and Environmental Science field course | 15 credits |
| <b>EART40031</b>   | Communicating Earth and Environmental Science           | 15 credits |
| <b>EART40130</b>   | Topics in Earth, Planetary and Environmental Sciences   | 15 credits |
| <b>Optional Units</b>  |   |            |
| Select 15 credits from the following   |   |            |
| <b>EART40110</b>   | Elective in Earth and Planetary Sciences                | 15 credits |

† Available to all except those who completed the unit at undergraduate level

## MEarthSci with Industrial Experience

(Available to all except those on Geology, Planetary Science or Palaeobiology pathways)

**2<sup>nd</sup> year:** Same as regular BSC programmes

**3<sup>th</sup> year:**       EART39990       Placement in industry

| <b>Fourth Year</b>   |   |            |
|--|---|------------|
| <b>Core Units</b>  |   |            |
| You will automatically be enrolled on these units by the Earth Support Team. |   |            |
| <b>EART44440</b>   | Research Project in Earth and Planetary Sciences        | 60 credits |
| <b>EART40012</b>   | Integrated Earth and Environmental Science field course | 15 credits |
| <b>EART40031</b>   | Communicating Earth and Environmental Science           | 15 credits |
| <b>EART40130</b>   | Topics in Earth, Planetary and Environmental Sciences   | 15 credits |
| <b>Optional Units</b>  |   |            |
| Select 15 credits from the following   |   |            |
| <b>EART40110</b>   | Elective in Earth and Planetary Sciences                | 15 credits |

† Available to all except those who completed the unit at undergraduate level

## MEarthSci with International Study

(Available to all except those on Geology pathway)

**2<sup>nd</sup> year:** Same as regular BSC programmes

**3<sup>th</sup> year:** EART39950 Study at University Abroad

| <b>Fourth Year</b>   |   |            |
|--|---|------------|
| <b>Core Units</b>  |   |            |
| You will automatically be enrolled on these units by the Earth Support Team. |   |            |
| <b>EART44440</b>   | Research Project in Earth and Planetary Sciences        | 60 credits |
| <b>EART40012</b>   | Integrated Earth and Environmental Science field course | 15 credits |
| <b>EART40031</b>   | Communicating Earth and Environmental Science           | 15 credits |
| <b>EART40130</b>   | Topics in Earth, Planetary and Environmental Sciences   | 15 credits |
| <b>Optional Units</b>  |   |            |
| Select 15 credits from the following   |   |            |
| <b>EART40110</b>   | Elective in Earth and Planetary Sciences                | 15 credits |

† Available to all except those who completed the unit at undergraduate level

## MEarthSci with a Research Placement

(Available to all except those on Geology pathway)

**2<sup>nd</sup> year:** Same as regular BSC programmes

**3<sup>th</sup> year:** EART39980 Year in Research

| <b>Fourth Year</b>   |   |            |
|--|---|------------|
| <b>Core Units</b>  |   |            |
| You will automatically be enrolled on these units by the Earth Support Team. |   |            |
| <b>EART44440</b>   | Research Project in Earth and Planetary Sciences        | 60 credits |
| <b>EART40012</b>   | Integrated Earth and Environmental Science field course | 15 credits |
| <b>EART40031</b>   | Communicating Earth and Environmental Science           | 15 credits |
| <b>EART40130</b>   | Topics in Earth, Planetary and Environmental Sciences   | 15 credits |
| <b>Optional Units</b>  |   |            |
| Select 15 credits from the following   |   |            |
| <b>EART40110</b>   | Elective in Earth and Planetary Sciences                | 15 credits |

† Available to all except those who completed the unit at undergraduate level