

# GEOLOGICAL SCIENCES – MAJOR (SCIENCE) – BACHELOR OF SCIENCE (HONOURS)

## GEOL-M-BSH

**Subject:** Administered by the Department of Geological Sciences and Geological Engineering.

**Plan:** Consists of 72.00 units as described below.

**Program:** The Plan, alone, or in combination with a Minor in another subject, and with sufficient electives to total 120.00 units, will lead to a Bachelor of Science (Honours) Degree.

| Code   | Title   | Units |
|--|---|-------|
| <b>1. Core</b>   |   |       |
| <b>A. Complete the following:</b>                        |   |       |
| GEOL 104   | The Dynamic Earth   | 3.00  |
| GEOL 107   | History of Life   | 3.00  |
| <b>B. Complete the following:</b>                        |   |       |
| GEOL 200   | Oceanography  | 3.00  |
| GEOL 221   | Geological Field Methods  | 3.00  |
| GEOL 232   | Mineralogy  | 3.00  |
| GEOL 235   | Igneous and Metamorphic Petrology   | 3.00  |
| GEOL 238   | Sedimentology and Stratigraphy  | 3.00  |
| GEOL 249   | Geophysical Characterization of the Earth                                     | 3.00  |
| <b>C. Complete 3.00 units from the following: 3.00</b>   |   |       |
| BIOL 243   | Introduction to Statistics  |       |
| STAM 200   | Introduction to Statistics  |       |
| STAT 263   | Introduction to Statistics  |       |
| <b>D. Complete 10.50 units from the following: 10.50</b> |   |       |
| GEOL 300   | Geological Field School   |       |
| GEOL 301   | Field Studies in Geology I<br>or GEOL 31 Problems in Sedimentary Geology      |       |
| GEOL 321   | Structural Geology  |       |
| GEOL 365   | Geochemical Characterization of Earth Processes                               |       |
| <b>E. Complete the following:</b>                        |   |       |
| GEOL 400   | Advanced Geological Sciences Field School                                     | 3.00  |
| GEOL 401   | Field Studies in Geology II<br>or GEOL 402 Problems in North American Geology | 1.50  |
| GEOL 488   | Geology of North America  | 3.00  |
| <b>2. Option</b>   |   |       |
| <b>A. Complete 9.00 units from the following: 9.00</b>   |   |       |
| GEOL at any level  |   |       |
| <b>B. Complete 6.00 units from the following: 6.00</b>   |   |       |
| CHEM 112   | General Chemistry   |       |
| MATH 120   | Differential and Integral Calculus  |       |

|  |  |               |
|--|--|---------------|
| MATH 121   | Differential and Integral Calculus   |               |
| MATH 123   | Differential and Integral Calculus I<br>& MATH 124 and Differential and Integral Calculus II |               |
| PHYS 104   | Fundamental Physics  |               |
| PHYS 106   | General Physics  |               |
| PHYS 115   | Introduction to Physics I<br>& PHYS 116 and Introduction to Physics II                       |               |
| PHYS 118   | Basic Physics  |               |
| <b>3. Supporting</b>                               |  |               |
| <b>A. Complete 12.00 units from the following:</b> |  | <b>12.00</b>  |
| CHEM 112   | General Chemistry  |               |
| MATH 120   | Differential and Integral Calculus   |               |
| MATH 121   | Differential and Integral Calculus   |               |
| MATH 123   | Differential and Integral Calculus I<br>& MATH 124 and Differential and Integral Calculus II |               |
| PHYS 104   | Fundamental Physics  |               |
| PHYS 106   | General Physics  |               |
| PHYS 115   | Introduction to Physics I<br>& PHYS 116 and Introduction to Physics II                       |               |
| PHYS 118   | Basic Physics  |               |
| <b>Electives</b>                                   |  |               |
| Elective Courses                                   |  | 48.00         |
| <b>Total Units</b>                                 |  | <b>120.00</b> |

## 4. Notes

A. 100- through 300-level geology courses within the core are prerequisites for most 300- and 400-level courses, and should normally be completed before the end of the third year of study

B. A maximum of 6.00 units from courses offered by other Faculties and Schools may be counted toward the program and/or Plan requirements. This includes courses in BMED, COMM, GLPH, HSCI, LAW, NURS, and courses in the Faculty of Engineering and Applied Science.