

**Programme Learning Outcomes – Major in Geology (Intensive)**

**1. University Educational Aims**

Benchmarked against the highest international standards, the 4-year undergraduate curriculum at HKU is designed to enable our students to develop their capabilities in:

- (1) pursuit of academic/professional excellence, critical intellectual enquiry and life-long learning
- (2) tackling novel situations and ill-defined problems
- (3) critical self-reflection, greater understanding of others, and upholding personal and professional ethics
- (4) intercultural communication, and global citizenship
- (5) communication and collaboration
- (6) leadership and advocacy for the improvement of the human condition

**2. Faculty Learning Outcomes**

Students completing the BSc curriculum should be able to:

- (1) explain the basic scientific principles and methods
- (2) comprehend fundamental concepts in mathematics and the physical, chemical, biological and earth sciences, and understand the interconnectivity among the sciences and other disciplines
- (3) apply scientific processes and knowledge in a wide variety of careers and professions
- (4) effectively communicate within and across the science disciplines
- (5) analyze scientific aspects of complex issues, and recognize and appraise moral and ethical issues within the sciences and related disciplines
- (6) integrate acquired discipline-specific knowledge in a science for professional and further academic pursuit in that discipline

**3. Programme Learning Outcomes – Major in Geology (Intensive)**

By the end of this programme, students should be able to:

- (1) describe and apply key concepts in the conventional areas of the geosciences, covering the areas of physical geology, historical geology, mineralogy, petrology, geochemistry, geophysics, structural geology, tectonics and petrogenesis, and earth resources  
*(by means of coursework, laboratory-based, tutorial classes and project-based learning in the curriculum)*
- (2) have acquired the ability to make observation, description, measurement and analysis of common geological features in the field, conduct geological mapping as well as undertake independent geological study, and appraise the related ethical issues  
*(by means of both local and overseas residential field learning experience)*
- (3) communicate scientific concepts and critically discuss aspects of contemporary issues pertaining to earth sciences, environments and resources  
*(by means of capstone, project-based learning and presentation opportunities in the curriculum)*
- (4) have gained some insight to the real-life industrial environment and developed connections within the geosciences profession  
*(by means of internship opportunities in the curriculum)*
- (5) work with others in an effective manner and have learned to accept and appreciate different cultures  
*(by means of group project learning, field learning experience in the curriculum)*

#### 4. Mapping of Programme Learning Outcomes to Faculty Learning Outcomes to University Educational Aims

Due to the richness and diversity of the Major, multiple Programme and/or Faculty Learning Outcomes may be used to satisfy the Faculty Learning Outcomes and/or University Educational Aims.

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