

Programme Learning Outcomes - Major in Environmental Science

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 Environmental Science

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

- (1) identify and describe different components of the environmental systems and key issues in environmental science
(by means of lectures, coursework, tutorial classes and laboratory-based learning in the curriculum)
- (2) observe, describe, measure and analyze physical, biological and chemical characteristics of natural and man-made environments
(by means of lectures, coursework, tutorial classes and laboratory-based learning in the curriculum)
- (3) appropriately use and critically analyze a range of forms and sources of environmental data, and assess environmental problems
(by means of lectures, coursework, tutorial classes and laboratory-based learning in the curriculum)
- (4) gain an advanced level of skills in scientific inquiry and effective communication of global environmental problems, issues of resource management, policies and management methods and appreciation of the related ethical issues
(by means of laboratory-based, project-based, presentation opportunities and capstone learning 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.

Programme Learning Outcomes – Major in Environmental Science	Faculty Learning Outcomes – BSc programme	University Educational Aims
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<ul style="list-style-type: none"> (1) identify and describe different components of the environmental systems and key issues in environmental science (2) observe, describe, measure and analyze physical, biological and chemical characteristics of natural and man-made environments (3) appropriately use and critically analyze a range of forms and sources of environmental data, and assess environmental problems 	<ul style="list-style-type: none"> (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 (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 	<ul style="list-style-type: none"> (1) pursuit of academic/professional excellence, critical intellectual enquiry and life-long learning
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<ul style="list-style-type: none"> (4) gain an advanced level of skills in scientific inquiry and effective communication of global environmental problems, issues of resource management, policies and management methods and appreciation of the related ethical issues 	<ul style="list-style-type: none"> (5) analyze scientific aspects of complex issues, and recognize and appraise moral and ethical issues within the sciences and related disciplines 	<ul style="list-style-type: none"> (3) critical self-reflection, greater understanding of others, and upholding personal and professional ethics

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