Minor Title	Minor in Environmental Science
Offered to students admitted to Year 1 in	**2012**

Objectives:
The Environmental Science curriculum in the Faculty of Science aims to provide students with a strong scientific and technological background for understanding and addressing the environmental issues faced by humankind. This includes a flexible teaching and learning programme so that students can explore environmental issues from a range of aspects. Core courses in the curriculum emphasize fundamental knowledge in life and environment, physical and sustainable environment, pollution, monitoring and management. Throughout the curriculum, students are encouraged to undertake their own independent study from primary and secondary sources to incorporate critical thinking, field and laboratory work, documentary and archive scholarship, as integrated elements of relevant courses. By completing the curriculum, students are expected to have enhanced their knowledge in environmental science and have improved their problem-solving ability, communication and social skills. Students will be prepared to work in industries and government agencies, where they will help manage wisely the resources for which they are responsible.

Learning Outcomes:
Students should be able to:

a. identify and describe different components of the environmental systems and key issues in environmental science;
(by means of coursework, tutorial classes and laboratory-based learning in the curricululm)

b. observe, describe, measure and analyze physical, biological and chemical characteristics of natural and man-made environments;
(by means of coursework, tutorial classes and laboratory-based learning in the curricululm)

c. appropriately use and critically analyze a range of forms and sources of environmental data, and assess environmental problems;
(by means of coursework, tutorial classes and laboratory-based learning in the curricululm)

d. gain an advanced level of skills in scientific inquiry and effective communication of global environmental problems, issues of resource management, policies and management methods.
(by means of labtoratory-based, project-based, presentation opportunities and capstone learning in the curriculum)

Impermissible Combination:
Major in Environmental Science

Required courses (42 credits)

1. Introductory level courses (18 credits)
ENVS1401 Introduction to environmental science (6)

Plus at least 6 credits selected from the following courses (Level 1):
CHEM1042 General chemistry (6)
EASC1401 Blue planet (6)
ENVS1301 Environmental life science (6)

Plus at least 6 credits selected from the following courses (Level 2):
BIOL2012 Biostatistics (6)
CHEM2041 Principles of chemistry (6)
EASC2405 Introduction to the hydrosphere (6)
ENVS2015 Global change ecology (6)

2. Advanced level courses (24 credits)
ENVS3004 Environment, Society and Economics (6 credits)

Plus at least 18 credits selected from the following courses:
BIOL3309 Conservation ecology (6)
CHEM3141 Environmental chemistry (6)
CHEM3241 Analytical chemistry II: chemical instrumentation (6)
EASC3405 Earth observation (6)

ENVS3003 Demographic principles in population and evolutionary biology (6)
ENVS3006 Environmental radiation (6)
ENVS3007 Natural Hazards and mitigation (6)
ENVS3010 Sustainable energy and environment (6)
ENVS3042 Pollution (6)
ENVS3313 Environmental oceanography and paleoceanography (6)
MATH3408 Computational methods and differential equations with applications (6)
STAT3611 Computer-aided data analysis (6)
ENVS4014 Environmental risk assessment and management (6)
ENVS4103 Ecological demography in changing environments (6)
ENVS4110 Environmental remediation (6)

Notes:
1. A course may appear as required course in two or more Science majors/minors. Each course can only be considered to satisfy the requirement of one major or one minor, even if that appears in the curriculum of two majors/minors. Students have to select another course to replace the course in the second major/minor.

2. Courses at the advanced level are subject to change.

Remarks:
Important! Ultimate responsibility rests with students to ensure that the required pre-requisites and co-requisite of selected courses are fulfilled. Students must take and pass all required courses in the selected primary science major in order to satisfy the degree graduation requirements.