University of Pretoria Yearbook 2018

MA Environment and Society (Coursework) (01250514)

Minimum duration of study	2 years
Total credits	180

Programme information

Please note: This programme will only be offered in English.

Admission requirements

- BAHons or an equivalent qualification with a minimum average of 60%. Access is determined on a competitive basis based on academic achievement.
- *Academic literacy:* Applicants must write an academic literacy test of which the results will be used for final placement. Exemption is granted to students who wrote and passed this test during the past five years.
- *Computer literacy:* applicants have to pass the standard computer literacy test applicable to all first-year undergraduate students at the University of Pretoria covering basic data base, spread-sheet and word processing software. Applicants who have already passed this test in the past five years are exempted from the test. Applicants who fail this test need to complete suitable modules, approved by the programme manager, during their first semester of master's degree study.

Additional requirements

Academic literacy
Applicants must write an academic literacy test of which the results will be used for final placement. Exemption is granted to students who wrote and passed this test during the past five years.

Computer literacy
Applicants have to pass the standard computer literacy test applicable to all first-year undergraduate students at the University of Pretoria covering basic data base, spread-sheet and word processing software. Applicants who have already passed this test in the past five years are exempted from the test. Applicants who fail this test need to complete suitable modules, approved by the programme manager, during their first semester of master's degree study.

Other programme-specific information

For detailed descriptions of module contents please consult the Centre for Environmental Studies' brochure (Geography Building 2-1; Tel: 012 420 4048) or the web page: http://www.up.ac.za/academic/centre-environmental-studies.

Curriculum: Year 1

Minimum credits: 90

Core modules

Select One of the following modules:

ENS 823 Environment and land reform

ENS 824 Social modelling and assessment

OMS 881 Environmental change

Core modules

Environment and development 811 (ENS 811)

Module credits	15.00
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Geography Geoinformatics and Meteorology
Period of presentation	Year

Module content

The foundation of the module is the interrelations between societal and environmental dynamics. It deals with issues of social structure, culture, politics, education, migration, production, urbanisation, demographics and social institutions and how these impact upon the environment. Also dealt with is how the consequences of impacts, such as environmental change, in turn affect societies. Analysis of complex interrelationships between society and the environment, social-environmental linkages and multiplier effects are dealt with.

Strategic environmental management 822 (ENS 822)

Module credits	15.00
Service modules	Faculty of Law
Prerequisites	No prerequisites.
Contact time	2 discussion classes per week, 5 lectures per week
Language of tuition	Module is presented in English
Department	Geography Geoinformatics and Meteorology
Period of presentation	Year

Module content

Strategic environmental planning: introduction, objectives and principles; levels; South African overview; guidelines: national and international; strategy and management; structure, strategy and agency; South African guidelines; diagnostic tools; RESP analysis; strategic resource planning; applications, implementation and control; development and policy implementation; South African environmental policy; evaluation frameworks; portfolio analysis; competitive forces; alliances; business benefits; intangibles, survival and catalytic contributions; South African legislation and regulations.

Environmental paradigms 810 (ENV 810)

Module credits	15.00
Prerequisites	No prerequisites.
Contact time	5 discussion classes per week
Language of tuition	Module is presented in English
Department	Zoology and Entomology
Period of presentation	Semester 1

Module content

Environmental philosophy and ethics, environmental ecology, environment, society and development, environmental economics, environmental management, critical resources management: water utilisation, air quality control, land-use planning: soil characteristics, biodiversity planning, critical resource management: determinism vs co-evolutionary environmental frameworks, research methodology and practice.

Environmental analysis, assessment and modelling 812 (ENV 812)

Module credits	20.00
Prerequisites	No prerequisites.
Contact time	5 discussion classes per week
Language of tuition	Module is presented in English
Department	Zoology and Entomology
Period of presentation	Year

Module content

Fundamentals of univariate statistics, classification and ordination, multivariate statistics, introduction to GIS and remote sensing tools for environmental analysis, spatial statistics, interpolation, kriging, trend surfaces, spatial autocorrelation, regression, risk assessment, social impact assessment.

Environmental law 816 (ENV 816)

Module credits	15.00
Service modules	Faculty of Law
Prerequisites	No prerequisites.
Contact time	1 lecture per week, 1 web-based period per week, 2 practicals per week
Language of tuition	Module is presented in English
Department	Zoology and Entomology
Period of presentation	Semester 1 or Semester 2

Module content

Legislation for sustainable development within the framework of international agreements, the different acts affecting water quality and water use, the SEMAs within the NEMA framework, the NEMA EIA regulations, legislation pertaining to hazardous substances, interaction between mining development and NEMA, energy law, strategic environmental legislation, marine and coastal management.

Elective modules

Environment and land reform 823 (ENS 823)

Module credits	15.00
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Geography Geoinformatics and Meteorology
Period of presentation	Year

Module content

The need and purpose of land reform in South Africa and its contribution towards sustainable social-environmental interaction. An overview of the global variety of land tenure systems, and tenure reform programmes in other countries. Overview of previous systems of land tenure in South Africa. Land reform policy in South Africa: restitution, redistribution, and tenure reform. Critical assessment of progress in terms of land reform objectives. Evaluation of the contribution of the South African land reform programme towards creating sustainable environments.

Social modelling and assessment 824 (ENS 824)

Module credits	15.00
Prerequisites	No prerequisites.
Contact time	5 discussion classes per week
Language of tuition	Module is presented in English
Department	Geography Geoinformatics and Meteorology
Period of presentation	Year

Module content

In this module students will be introduced to the various methods of modelling and assessing social impacts. Specific emphasis will be placed upon modelling societal-economic-environmental interactions, formulating stochastic and dynamic models of population-development-environment interactions, conducting research to determine possible impacts of environmental changes on communities and performing social impact surveys. Students will be introduced to both quantitative as well as qualitative methods of conducting social impacts assessments.

Water conservation and demand management 821 (EWM 821)

Module credits	15.00
Prerequisites	No prerequisites.

Contact time	20 discussion classes
Language of tuition	Module is presented in English
Department	Microbiology and Plant Pathology
Period of presentation	Semester 2

Module content

Public access to information regarding water quality, water supply sustainability and public education, demand projections, water management efficiency systems approach to water management, watershed protection, drinking water treatment and distribution, wastewater collection and treatment, effects of deforestation and treatment, and complex water system developments, destruction of wetlands, effects of recreation, agriculture and aquaculture on eutrophication.

Environmental change 881 (OMS 881)

Module credits	15.00
Prerequisites	No prerequisites.
Language of tuition	Separate classes for Afrikaans and English
Department	Geography Geoinformatics and Meteorology
Period of presentation	Year

Module content

This module involves the study of the causes and consequences of environmental change from multidisciplinary perspectives. A focus of this course is human environmental interactions. Past processes leading to environmental change will also be discussed. In a given period, the following will be investigated: principles of environmental change, causes and consequences of environmental change, Global warming and climate change: causes and impacts of climate change on natural resources; water, forests, biodiversity, land use and land cover change, environmental/Climate change and infectious disease, human dimensions of global change and Climate change political responses including the Kyoto protocol. Mitigation and adaptation strategies to climate change and effects of Climate change on sustainable development.

Biogeography and macro-ecology 809 (ZEN 809)

Module credits	15.00
Prerequisites	No prerequisites.
Contact time	4 discussion classes per week
Language of tuition	Module is presented in English
Department	Zoology and Entomology
Period of presentation	Year

Module content

Biogeographic consequences of plate tectonics, Pleistocene southern African climatic, geological, edaphic and geomorphological patterns. Reconstructing biogeographic histories (speciation, extinction, dispersal, vicariance, endemism, provincialism and disjunction); phytogeographical patterns, biomes, vegetation types. Methodological issues in macro-ecology; patterns of body size, abundance and energetics; geographic range sizes; species dynamics in landscapes; implications of macro-ecological patterns to ecology; biogeography and evolution; macro-ecological perspectives on conservation: species richness, hierarchical diversity, hotspots, spatial and temporal patterns in diversity (genetic, taxonomic, functional); causal mechanisms, species diversity, biodiversity and global change.

Curriculum: Final year

Minimum credits: 90

Core modules

Mini-dissertation 891 (ENV 891)

Module credits	90.00
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Zoology and Entomology
Period of presentation	Year

Module content

The student needs to conduct a research project under the supervision of an academic member of staff associated with the Centre for Environmental Studies. This project needs to be of a sufficient quality to be publishable in the open scientific literature. The research report is examined as a manuscript for a suitable journal.

The information published here is subject to change and may be amended after the publication of this information. The General Regulations (G Regulations) apply to all faculties of the University of Pretoria. It is expected of students to familiarise themselves well with these regulations as well as with the information contained in the General Rules section. Ignorance concerning these regulations and rules will not be accepted as an excuse for any transgression.