University of Pretoria Yearbook 2022

BScHons *Wildlife Management* (02240700)

Department	Zoology and Entomology
Minimum duration of study	1 year
Total credits	135
NQF level	08

Admission requirements

1. Relevant BSc degree **or** BVSc degree
2. A weighted average of at least 65% at final-year level
3. Statistics passed at undergraduate level, alternatively one module in statistics must be registered for

Curriculum: Final year

Minimum credits: 135

Core modules

Statistics for biological sciences 780 (BME 780)

Module credits	15.00
NQF Level	08
Service modules	Faculty of Natural and Agricultural Sciences
Prerequisites	No prerequisites.
Contact time	2 Block weeks
Language of tuition	Module is presented in English
Department	Statistics
Period of presentation	Semester 1

Module content

The principles of experimental design as required for the selection of an appropriate research design. Identification of the design limitations and the impact thereof on the research hypotheses and the statistical methods. Identification and application of the appropriate statistical methods needed. Interpreting of statistical results and translating these results to the biological context.

Plant identification and herbarium curation 786 (BOT 786)

Module credits	15.00
NQF Level	08
Prerequisites	BOT 161 or permission from the Head of Department.
Contact time	2 Block weeks, 2 practicals per week, 3 Block weeks
Language of tuition	Module is presented in English
Department	Department of Plant and Soil Sciences
Period of presentation	Semester 1

Module content

Principles of identification, classification and nomenclature; identification of plants; family recognition; collection of plant specimens for identification; herbarium as a source of information. Variation in seed plants and breeding systems. Legal and ethical aspects of plant collection and permit requirements. Specimen preparation, including pressing, sterilisation, mounting, labelling and data capture. Introduction to herbarium databases. Herbarium curation and upkeep, including nomenclatural and taxonomic updates and classification systems, and aspects of pest control and health and safety. Practical work involves an excursion.

Wildlife ecology 780 (NLB 780)

Module credits	10.00

NQF Level	08
Prerequisites	No prerequisites.
Contact time	2 lectures per week, 2 practicals per week
Language of tuition	Module is presented in English
Department	Zoology and Entomology
Period of presentation	Semester 1

Module content

Research in wildlife management focuses on gaining a better understanding of patterns of animal distribution, abundance, and diversity, and implementation of scientifically sound strategies for sustainable management and conservation of wildlife populations. This module will develop an in-depth understanding of core wildlife management concepts with a focus on population characteristics, the density concept, mortality, natality, life tables, population growth, harvesting quotas, population regulation, population structure, dispersal, dispersion, aggregation, isolation and territoriality, competition and predator-prey relationships. This module will also explore new ideas, and advanced research methods to evaluate ecological data in the context of wildlife ecology.

Wildlife management principles and techniques 781 (NLB 781)

Module credits	10.00
NQF Level	08
Prerequisites	No prerequisites.
Contact time	1 discussion class per month, 1 lecture per week
Language of tuition	Module is presented in English
Department	Zoology and Entomology
Period of presentation	Year

Module content

The most important techniques applicable to wildlife management and wildlife research are discussed. The principles, applications and restrictions of the following are discussed amongst others: wildlife counts, age determination, age and sex ratios, translocation of animals, chemical immobilisation, mechanical capture techniques, transport of wildlife, land-use, predator control and predator-prey studies.

Wildlife nutrition 782 (NLB 782)

Module credits	10.00
NQF Level	08
Prerequisites	No prerequisites.
Contact time	2 Block weeks, 2 practicals
Language of tuition	Module is presented in English
Department	Zoology and Entomology

Period of presentation	Semester 2

Module content

Ensuring essential prior knowledge of the fundamentals of nutrition through peer-assisted learning strategies. The digestive functioning of selected wild ruminant and non-ruminant herbivores is discussed as well as their nutrient requirements and deficiencies that commonly occur. The spatial scaling of nutrients in vegetation is explained, followed by the foraging strategies that large African herbivores of varying body sizes use to adapt to spatial and temporal nutrient heterogeneity. Optimal foraging theory is discussed. This module supports the Sustainable Development Goals 2 (Zero hunger) and 15 (Life on land).

Parasites, diseases and the capture of wildlife animals 783 (NLB 783)

Module credits	10.00
NQF Level	08
Prerequisites	No prerequisites.
Contact time	2 lectures per week, 2 practicals per week
Language of tuition	Module is presented in English
Department	Zoology and Entomology
Period of presentation	Semester 1

Module content

Parasites, diseases and capture of wild animals. An overview of veterinary aspects with reference to important parasites and diseases of wild animals. The capture of wildlife and the stress-related consequences of the capture of wild animals. The module content includes a discussion of all the different chemicals used to immobilise wild animals, darting, and handling of wild animals under sedation. The internal and external parasites, most important contagious wildlife diseases and the prevention of capture related diseases are discussed.

Research project 795 (NLB 795)

Module credits	50.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Zoology and Entomology
Period of presentation	Year

Module content

A research protocol, field work and project report based on an ecological or wildlife management topic. This module will introduce aspects of scientific communication, developing skills in communication, writing and public presentation. The module addresses the Life on Land Sustainable Development Goal.

Rangeland management 781 (WDE 781)

Module credits	15.00

NQF Level	08
Prerequisites	No prerequisites.
Contact time	1 lecture per week
Language of tuition	Module is presented in English
Department	Department of Plant and Soil Sciences
Period of presentation	Year

Module content

The development of rangeland management strategies integrating ecological and physiological principles with economic and sociological constraints to achieve desired objectives whilst ensuring sustainability in different vegetation types for both livestock and wildlife systems; range evaluation and monitoring techniques for rangeland health and to guide adaptive management; rangeland restoration/rehabilitation; interactions among herbivores, including integrated livestock/wildlife systems.

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