

University of Pretoria Yearbook 2021

Contemporary research techniques 784 (ZEN 784)

Qualification	Postgraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	13.00
NQF Level	08
Programmes	BScHons Entomology BScHons Zoology
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	Semester 2

Module content

Stable isotope ecology – applications of stable isotope-based techniques in zoological research, including (i) tracking animal movements, (ii) dietary reconstruction, (iii) delineation of trophic levels, (iv) tracing nutrient allocation to reproduction, (v) forensic applications, and (vi) doubly-labelled water and water tracer applications. Stress hormones – the spectrum of stress molecules, how they are regulated, what their impacts are, and how they are measured to reflect acute and chronic stress. Photogrammetry – (i) appropriate equipment for photogrammetry, (ii) photographic techniques for photogrammetric use, (iii) photogrammetry software, (iv) building three-dimensional models, (v) measuring models. Applications of molecular biology to conservation genetics, infectious disease epidemiology and ecology, forensics (host and pathogen-based) and diagnostics.

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