



University of Pretoria Yearbook 2019

Contemporary research techniques 784 (ZEN 784)

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| Qualification | Postgraduate |
| Faculty | Faculty of Natural and Agricultural Sciences |
| Module credits | 13.00 |
| 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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