Module code	SB-4333		
Module Title	Ichthyology		
Degree/Diploma	Bachelor of Science (Biology)		
Type of Module	Major Option		
Modular Credits	4	**Total student workload**	8 hours/week
		Contact hours	6 hours/week
Prerequisite	SB-1201 Diversity of Life; SB-1202 Organisms and Environment; SB-2203 Animal Form and Function		
Anti-requisite	None		

Aims

The aim of this module is to gain a basic knowledge of fish biodiversity and fish biology, at the organism, population and ecosystem levels.

Learning Outcomes

On successful completion of this module, a student will be expected to be able to:

Lower order:	10%	-Identify and differentiate the major taxa (subclass level) of cartilagineous and bony fishes (Chondroichthyes, Osteichthyes: Actinopterygii, Sarcopterygii: Dipnomorpha, Actinistia)
Middle order:	10%	-Describe the structures and functions of fishes at the organism level
Higher order:	80%	-Relate physical, chemical and biological parameters in controlling the abundance and diversity of fishes -Evaluate the role of fishes in aquatic and terrestrial ecosystems

Module Contents

- Brief history of ichthyology
- Introduction to morphological and molecular systematics
- Fish taxonomy and systematics
- Locomotion, feeding and respiration
- Sensory systems (vision, mechano-, chemo-, electromagnetic reception)
- Homeostasis I: hydrostatic balance, thermoregulation, nutrition, energetics
- Homeostasis II: excretion, pH, hydromineral balance, endocrine, autonomic and immune systems
- Fish reproductive biology (tokology)
- Life history: ontogeny and eco-evolutionary aspects
- Behavioural and population ecology (cyclic behaviours, migrations)
- System ecology (trophic guilds, trophic cascades, food webs, ecosystem engineering)
- Fish biogeography and habitat diversity
- Fish conservation and management

Assessment	Formative assessment	Tutorial assignments and feedback
	Summative assessment	Examination: 0%
		Coursework: 100% - 2 practical reports (20%) - 3 written assignments (30%) - 5 literature-review assignments (30%) - 2 oral presentations (20%)