| Module code | SB-2206 | | | |
|------------------------|---------------------------------|------------------------|--------------|--|
| Module Title | Principles of Animal Physiology | | | |
| Degree/Diploma | Bachelor of Science (Biology) | | | |
| Type of Module | Major Core | | | |
| Modular Credits | 4 | Total student Workload | 8 hours/week | |
| | | Contact hours | 6 hours/week | |
| Prerequisite | None | | | |
| Anti-requisite | None | | | |

Aims

This module will provide an understanding of the principles and mechanisms of animal physiology. It will emphasise the experimental and integrative basis of physiology. Throughout the module, the zoological context will be brought forward to show how physiological mechanisms have evolved in response to the selective pressures encountered by animals in their natural environments. Furthermore, the comparative approach will be used to uncover patterns of physiological function across different species.

Learning Outcomes

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

| Lower order : | 10% | - Describe the basic principles underlying animal physiology and describe basic | |
|----------------|-----|---|--|
| | | structure function relationships. | |
| Middle order : | 10% | - Analyse and understand structure function relationships, homeostasis, | |
| | | feedback regulation, adaptation and acclimation. | |
| Higher order: | 80% | - Connect the concepts and approaches to allow hypothesis testing and | |
| | | experimentation leading to novel discoveries. | |

Module Contents

- Homeostasis
- Biological control systems
- Physiological adaptation
- Metabolism and thermoregulation
- Nutrition and digestion physiology
- Circulation and cardiovascular physiology
- Respiratory systems and respiration physiology
- Movement and muscle physiology
- Nervous systems and neural physiology
- Endocrine systems and chemical coordination
- Reproduction and growth physiology
- Excretory systems
- Osmoregulation

| Assessment | Formative assessment | Tutorial assignments and feedback |
|------------|----------------------|-----------------------------------|
| | Summative assessment | Examination: 0% |
| | | Coursework: 100% |
| | | - 2 class tests (40%) |
| | | - 1 mini-project (20%) |
| | | - 2 written assignments (20%) |
| | | - 3 practical reports (20%) |