



Course Outline

EXSCI1010 BIOSCIENCE 2:PHYSIOLOGY

Title:	BIOSCIENCE 2:PHYSIOLOGY
Code:	EXSCI1010
Formerly:	HM508
School / Division:	School of Health Sciences
Level:	Introductory
Pre-requisites:	(EXSCI1009 or HM504 or HM507)
Co-requisites:	Nil
Exclusions:	(HM508) (EXSCI1012)
Progress Units:	15
ASCED Code:	10913

Objectives:

After successfully completing this course, students should be able to:

Knowledge:

- Demonstrate an understanding of homeostatic mechanisms involved in fluid, electrolyte and acid-base balance
- Demonstrate an understanding of the basic functions of the cardiovascular, lymphatic, endocrine, muscular, nervous, renal, respiratory, reproductive, under normal conditions and in regard to selected pathologies
- Explain the fundamental principles of pharmacokinetics focusing on molecular characteristics of drugs, absorption, distribution, metabolism and excretion
- Explain the fundamental principles of pharmacodynamics focusing on drug-receptor interactions and physiology
- Demonstrate an understanding of protein synthesis and genetics

Skills:

- Develop a capacity to administer, interpret and analyse a range of tests of physiological function.
- Incorporate and extend existing knowledge in Bioscience
- Begin to develop skills in reading and interpreting physiological literature

Values:

- Develop an appreciation of an observational and evidence-based approach to physiology

Content:



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Topics may include:

- Homeostasis
- Basic chemistry & biochemistry
- Cell kinetics & Cell Physiology; DNA and protein synthesis
- Muscular System function
- Basic Nutrition and Metabolism
- Enzymes and energy
- Respiratory physiology
- Cardiac and Circulatory Physiology
- Lymphatic function and Immunity
- Neural physiology and Integration
- Endocrine physiology
- Digestive physiology
- Renal physiology
- Fluid, electrolyte and acid base regulation
- Pharmacokinetics and Pharmacodynamics
- Reproductive physiology and genetics

Learning Tasks & Assessment:

Learning Task	Assessment	Weighting
Completion of laboratory tasks/workbook	ungraded	S/U
Formal class work, workbooks, readings, laboratory work	Lab quizzes	0 - 40%
Formal class work, workbooks, readings, laboratory work	Mid semester examination	20% - 50%
Formal class work, workbooks, readings, laboratory work	Final examination	40% - 70%

Adopted Reference Style:

APA

Handbook Summary:

This course aims to provide an introduction of the study of physiology and its terminology. Students will be provided with a basic understanding of the structure of the human body and it's interrelationship with function. The content covers all body systems and is designed to provide an anatomical foundation for further studies in Nursing.