UNDERGRADUATE MODULE INTRODUCTIONS

Module Pre-requisites:	Other Modules that must be satisfactorily completed prior to commencement of the Module.
Module Co-requisites:	Other Modules that need to either be completed or are being attempted simultaneously. NB Students should carefully consider Co-requisites if thinking of withdrawing from any Module
Distance Education:	Modules marked with an asterisk (*) are unable to be studied by distance education at this time due to their practical nature. These Modules may be held as short intensive courses for Distance Education students as required.

DEPARTMENT OF MEDICAL STUDIES

Basic and medical sciences are a vital component of the foundations upon which is built a competent practitioner. In order to ensure the best outcome of treatment for the patient, the practitioner must be capable of detecting and recognising the differences between the healthy and ailing human body. The practitioner must be proficient at recognising both acute and chronic life-threatening disease states and have the ability to refer confidently to other practitioners.

UNDERGRADUATE MODULE INTRODUCTIONS: MEDICAL STUDIES – PAGE 2

Anatomy & Physiology 1 – 2 1101

This module details elementary human biology, cell structure and function, cellular reproduction and the tissues, structure and functions of the major bodily systems and their organs most relevant to remedial therapies.

Anatomy & Physiology 3 – 4 1102

This module continues the detailed study of elementary human biology, cell structure and function, cellular reproduction and the tissues, structure and functions of the major bodily systems and their organs. Covers the anatomy and physiology of all the systems of the human body.

Animal Pathophysiology 1 & 2 2103 / 2104

Pre-requisites: *Zoology / Animal Physiology 1 & 2*

Continues from Zoology / Animal Physiology with in-depth examination of the pathophysiology of animal systems and organs. Completion of these modules enables the student to understand the animal body to the level required to perform a screening assessment.

Applied Anatomy & Physiology 1 / Practical Anatomy 1106

Pre-requisites: *Anatomy and Physiology*

To provide a thorough grounding in the anatomy and physiology of muscles, bones and joints by in-depth study of the musculoskeletal system. Specially designed to cater for Massage and Remedial Therapists, this module also introduces the study of biomechanics. The practical component gives the student hands-on experience in the practical aspects of musculoskeletal study.

Applied Anatomy & Physiology 2 2106

Pre-requisites: *Applied Anatomy and Physiology 1 / Practical Anatomy*

Continues the study of the anatomy and physiology of muscles, bones and joints by in-depth study of the musculoskeletal system. Specially designed to cater for Massage and Remedial Therapists, this module also continues the study of biomechanics.

UNDERGRADUATE MODULE INTRODUCTIONS: MEDICAL STUDIES – PAGE 3

Applied Anatomy & Physiology 3 3106

Pre-requisites: *Applied Anatomy and Physiology 2*

Continues the study of the anatomy and physiology of muscles, bones and joints by in-depth study of the musculoskeletal system. Specially designed to cater for Massage and Remedial Therapists, this module also continues the study of biomechanics and musculoskeletal disorders.

Applied Biochemistry 4110

Pre-requisites: *Biochemical Nutrition (Biochemistry) 1 & 2*

Expands on the knowledge obtained in Biochemistry with emphasis on the application of biochemical concepts in clinical practice through looking at the biomedical aspects of common disease states and conditions. Modern research in biomedical sciences is also discussed.

Biochemical Nutrition (Biochemistry) 1 & 2 3111

Pre -requisites: *Biological Chemistry, Nutritional Therapies.*

Aims to develop knowledge of the biochemical processes within the human body. Students will cover biochemical pathways relating to energy production and utilisation, metabolism, storage and waste removal by the body. Biochemical Nutrition (Biochemistry) provides the background biochemical information required for the successful completion of Biochemical Nutrition (Nutrition) and Clinical Nutrition.

Biological Chemistry 2110

Pre-requisites: *Physical Chemistry / Course Entry*

The study of organic chemistry, building on the knowledge gained in Physical Chemistry, and complementing the requirements of Anatomy and Physiology and Nutritional Therapies. Specifically designed to cater for future nutritionists, this module concentrates on the study of organic chemistry and through this, the chemistry of food components, enzymes, vitamins and hormones, nucleic acids and some basic introductory concepts used in biochemistry.

UNDERGRADUATE MODULE INTRODUCTIONS: MEDICAL STUDIES – PAGE 4

Clinical Pharmacology 1 4121

Pre-requisites: *Pathophysiology 1 & 2*

Examines the most common medical drugs that may be encountered in clinical practice today. Introduction to the actions, indications, contra-indications, interactions and the side-effect profiles are studied to give the practitioner an understanding of medical drugs so that supplements prescribed do not interfere with medical drugs prescribed to the patient.

Clinical Pharmacology 2 4122

Pre-requisites: *Pathophysiology 1 & 2*
Biochemistry 1
Co-requisites: *Pathology*
Medical Symptomatology & Diagnosis

Examines the medical drugs that may be encountered in clinical practice today. Mechanisms of action, indications, contra-indications, drug and food interactions and the side-effect profiles are studied to give the practitioner an understanding of medical drugs so that supplements prescribed do not interfere with medical drugs prescribed to the patient. Recognition of drug-induced (iatrogenic) syndromes is invaluable to the practitioner when treating patients for other non-related health problems.

Infectious Diseases 3132

Pre-requisites: *Pathophysiology 3 (Immunology)*

Enables the student to recognise, notify, and manage common notifiable and transmittable diseases, to understand their cause, and mode of transmission and methods of orthodox medical treatment.

*** Medical Symptomatology and Diagnosis** 4100

Pre-requisites: *Pathophysiology 1 & 2, Biochemical Nutrition (Biochemistry) 1 & 2*
Co-requisites: *Pathology, Clinical Pharmacology*

Teaches provisional diagnosis based on the symptom picture and differentiation of disease states through familiarity with the symptomatology. Techniques of investigation open to the practitioner are also examined. Practical "hands on" examination within the class, and role-play of practitioner/patient emphasises the theory taught.

UNDERGRADUATE MODULE INTRODUCTIONS: MEDICAL STUDIES – PAGE 5

Pathology 3100

Pre-requisites: *Pathophysiology 1 & 2*

Analyses the nature, origin and course of diseases from the western medical point of view. Topics covered include the biochemical basis of disease, cell response to injury, acute inflammation, the immune response, hypersensitivity, bacteriology, tumours, genetic disorders and specific diseases of each of the major bodily systems.

Pathophysiology 1 & 2 2101 / 2102

Pre-requisites: *Anatomy and Physiology 1 – 4 or*
Pre-requisites: *Anatomy and Physiology 1 – 2 plus Applied Anatomy & Physiology 1 / Practical Anatomy*

Continues from Anatomy and Physiology with in-depth examination of the pathophysiology of the body systems and organs. Completion of these modules enable the student to understand the human body to the level required to perform a screening assessment as described in the Competency Standards.

Pathophysiology 3 (Immunology) 3131

Pre-requisites: *Pathophysiology 1 & 2*

Enables the student to recognise, notify, and manage common notifiable and transmittable diseases, to understand their cause, and mode of transmission and methods of orthodox medical treatment.

Physical Chemistry 1110

Designed for those who have not studied chemistry before, and have little scientific background beyond Year 10 or equivalent. The module covers such topics as: measurements, energy & matter, atoms & elements, chemical quantities & nuclear radiation, gases, composition and concentration of solutions, and the chemistry of acids, bases and salts. On completion of this module, the student will be familiar with a wide range of chemical terminology and concepts, and be able to do basic chemical calculations.

Zoology / Animal Physiology 1 & 2 1107 / 1108

This module details elementary animal biology, cell structure and function, cellular reproduction and the tissues, structure and functions of the major bodily systems and their organs. Covers the anatomy and physiology of all the systems of the animal body.