

# BACHELOR OF HEALTH SCIENCE IN CLINICAL TECHNOLOGY

(Qualification type: Professional Bachelor's Degree)

Qualification code: BPCL20 - NQF Level 8 (496 credits)

SAQA ID: 111828, CHE NUMBER: H/H16/E148CAN

Campus where offered:

Arcadia Campus

## REMARKS

a. Admission requirement(s) and selection criteria:

• **APPLICANTS WHO OBTAINED A SENIOR CERTIFICATE BEFORE 2008:**

**Admission requirement(s):**

A Senior Certificate with a matriculation endorsement or equivalent qualification, with a D symbol at Higher Grade, or C symbol at Standard Grade for: English, Mathematics, Physical Science and Biology.

**Selection criteria:**

To be considered for this qualification, candidates must have an Admission Point Score (APS) of at least **24**.

• **APPLICANTS WHO OBTAINED A NATIONAL SENIOR CERTIFICATE IN OR AFTER 2008:**

**Admission requirement(s):**

A National Senior Certificate or an equivalent qualification, with a bachelor's degree endorsement, or an equivalent qualification, with an achievement level of at least 4 for English (home language or first additional language), 4 for Mathematics or Technical Mathematics, 4 for Physical Sciences or Technical Sciences and 4 for Life Sciences.

**Selection criteria:**

To be considered for this qualification, candidates must have an Admission Point Score (APS) of at least **24** (excluding Life Orientation).

b. Assessment procedure(s):

**For 2021:** Top candidates will be selected based on their relevant APS scores, these candidates will be contacted and will be required to submit a motivational portfolio (including testimonials from relevant guardian teachers and/or character testimonials). The APS will contribute 60%, the motivational portfolio 40% towards the final score. The motivational portfolio will be based on previous year's interview questions.

**As from 2022:** Applicants will be invited for a TUT Potential Assessment Test and depending on the results will be invited for an interview. Structured panel interviews are conducted by the full-time academic staff in the department of the Clinical Technology programme, as well as appointed qualified clinical technology part-time staff from industry to further streamline admission to the programme. The APS will contribute 40%, the TUT Potential Assessment will contribute 20% and the interview will contribute 40% of the final score.

The number of selected students is dependent on the approval and availability of clinical student posts at the participating and HPCSA-accredited training facilities. Please take note that all completed applications received within the published due dates will be ranked. After consideration of the Departmental Student Enrolment Plan, only the top ranking applicants will be selected. Once a programme is full, a waiting list will be in place to provide an opportunity for applicants to fill places of those who did not register on time. Applicants will be informed of their status per official letter from the Office of the Registrar, alternatively, they can check their application status on the TUT website, [www.tut.ac.za](http://www.tut.ac.za).



- c. *Recognition of Prior Learning (RPL), equivalence and status:*  
See Chapter 30 of Students' Rules and Regulations.
- d. *Minimum duration:*  
Four years.
- e. *Presentation:*  
Day classes.
- f. *Intake for the qualification:*  
January only.
- g. *Other requirements:*  
Vaccination against Hepatitis B is compulsory.
- h. *Practicals:*  
100% attendance is compulsory for all practical classes. Students must pass the practical component of a subject to obtain admission to sit for the examination.
- i. *Personal protective equipment:*  
Specific safety wear is compulsory in the practical laboratories.
- j. *Registration as a student clinical technologist:*
- Registration with the Health Professions Council of South Africa (HPCSA) as a student clinical technologist is compulsory.
  - International students will be allowed to register at the HPCSA only as student clinical technologist; and for the duration of the relevant qualification. However, they will not be able to register with the HPCSA as a clinical technologist.
- k. *Professional registration as a clinical technologist:*  
Registration as a qualified clinical technologist takes place four years after registration as a student clinical technologist, provided that the candidate completes the four academic years successfully.
- l. *Clinical training (third and fourth year):*  
The Head of the Department reserves the right to train students in some of the seven categories after consultation with industry. Students will receive guidance in their second year on the available options for the following year. Clinical training must be completed at an accredited unit. During the training period, the student is subject to the jurisdiction of this unit. The duration of the clinical training is two years.
- m. *Exclusion and readmission:*  
See Chapter 2 of Students' Rules and Regulations.

## CURRICULUM

### FIRST YEAR

CODE	MODULE	NQF-L	CREDIT	PREREQUISITE MODULE(S)
CAP105X	Communication for Academic Purposes	(5)	(10)	
CLP105P	Clinical Professional Practice I	(5)	(12)	
CPL105X	Computer Literacy	(5)	(10)	
FLF125P	Foundation Life Skills (block mode)	(5)	(2)	
HAN105P	Human Anatomy I	(5)	(18)	
HPY105P	Human Physiology I	(5)	(18)	
MAS105X	Mathematics and Statistics I	(5)	(12)	

## FIRST SEMESTER

CHS115P	Chemistry for Health Sciences I	(5)	(12)
PHS115P	Physics for Health Sciences I	(5)	(12)
RPL115P	Research Principles I	(5)	(6)

## SECOND SEMESTER

MBH115P	Medical Law, Bio-Ethics and Human Rights I	(5)	(9)
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TOTAL CREDITS FOR THE FIRST YEAR: **121**

## SECOND YEAR

CODE	MODULE	NQF-L	CREDIT	PREREQUISITE MODULE(S)
BAP206P	Biomedical Apparatus II	(6)	(18)	Human Anatomy I Human Physiology I
CLC206P	Clinical Science Practice II	(6)	(12)	Clinical Professional Practice I Human Anatomy I Human Physiology I
CLP206P	Clinical Professional Practice II	(6)	(12)	Clinical Professional Practice I
HAN206P	Human Anatomy II	(6)	(18)	Human Anatomy I
HPY206P	Human Physiology II	(6)	(18)	Human Physiology I
PMY206P	Pharmacology II	(6)	(18)	Chemistry for Health Sciences I Human Anatomy I Human Physiology I
PTS206P	Pathophysiology II	(6)	(18)	Human Anatomy I Human Physiology I

## FIRST SEMESTER

MBH216P	Medical Law, Bio-Ethics and Human Rights II	(6)	(9)	Medical Law, Bio-Ethics and Human Rights I
RPL216P	Research Principles II	(6)	(6)	Research Principles I

TOTAL CREDITS FOR THE SECOND YEAR: **129**

## THIRD YEAR

CODE	MODULE	NQF-L	CREDIT	PREREQUISITE MODULE(S)
CLP307P	Clinical Professional Practice III	(7)	(12)	Clinical Professional Practice II Medical Law, Bio-Ethics and Human Rights II
HAM307P	Health Care Administration and Management I	(7)	(12)	
MBH317P	Medical Law, Bio-Ethics and Human Rights III (first-semester module)	(7)	(9)	Medical Law, Bio-Ethics and Human Rights II
RPL307P	Research Principles III	(7)	(6)	Research Principles II

**plus one of the following modules: (the prerequisite modules for all modules are: Human Anatomy II, Human Physiology II and Pathophysiology II):**

CCA307P	Anatomy and Physiology III in: Critical Care	(7)	(18)
CYA307P	Anatomy and Physiology III in: Cardiology	(7)	(18)



NEA307P	Anatomy and Physiology III in: Nephrology	(7)	(18)
NRA307P	Anatomy and Physiology III in: Neurophysiology	(7)	(18)
PLA307P	Anatomy and Physiology III in: Pulmonology	(7)	(18)
RDA307P	Anatomy and Physiology III in: Reproductive Biology	(7)	(18)
VAA307P	Anatomy and Physiology III in: Cardiovascular Perfusion	(7)	(18)

**plus one of the following modules: (the prerequisite modules for all modules are: Human Anatomy II, Human Physiology II and Pathophysiology II):**

CCB307P	Biomedical Apparatus III in: Critical Care	(7)	(24)
CYB307P	Biomedical Apparatus III in: Cardiology	(7)	(24)
NEB307P	Biomedical Apparatus III in: Nephrology	(7)	(24)
NRB307P	Biomedical Apparatus III in: Neurophysiology	(7)	(24)
PLB307P	Biomedical Apparatus III in: Pulmonology	(7)	(24)
RDB307P	Biomedical Apparatus III in: Reproductive Biology	(7)	(24)
VAB307P	Biomedical Apparatus III in: Cardiovascular Perfusion	(7)	(24)

**plus one of the following modules: (the prerequisite modules for all modules are: Biomedical Apparatus II, Clinical Professional Practice II, Clinical Science Practice II, Human Anatomy II, Human Physiology II and Pathophysiology II)**

CCE307P	Clinical Science Practice III in: Critical Care	(7)	(18)
CYE307P	Clinical Science Practice III in: Cardiology	(7)	(18)
NEE307P	Clinical Science Practice III in: Nephrology	(7)	(18)
NRE307P	Clinical Science Practice III in: Neurophysiology	(7)	(18)
PLE307P	Clinical Science Practice III in: Pulmonology	(7)	(18)
RBE307P	Clinical Science Practice III in: Reproductive Biology	(7)	(18)
VAE307P	Clinical Science Practice III in: Cardiovascular Perfusion	(7)	(18)

**plus one of the following modules: (the prerequisite modules for all modules are: Human Anatomy II, Human Physiology II and Pathophysiology II):**

CCP307P	Pathophysiology III in: Critical Care	(7)	(18)
CYP307P	Pathophysiology III in: Cardiology	(7)	(18)
NEP307P	Pathophysiology III in: Nephrology	(7)	(18)
NRP307P	Pathophysiology III in: Neurophysiology	(7)	(18)
PLP307P	Pathophysiology III in: Pulmonology	(7)	(18)

RBP307P	Pathophysiology III in: Reproductive Biology	(7)	(18)
VAP307P	Pathophysiology III in: Cardiovascular Perfusion	(7)	(18)

**plus one of the following first-semester modules:**

CCH317P	Pharmacology III in: Critical Care	(7)	(6)	Pharmacology II
CYH317P	Pharmacology III in: Cardiology	(7)	(6)	Pharmacology II
NEH317P	Pharmacology III in: Nephrology	(7)	(6)	Pharmacology II
NRH317P	Pharmacology III in: Neurophysiology	(7)	(6)	Pharmacology II
PLH317P	Pharmacology III in: Pulmonology	(7)	(6)	Pharmacology II
RBH317P	Pharmacology III in: Reproductive Biology	(7)	(6)	Pharmacology II
VAH317P	Pharmacology III in: Cardiovascular Perfusion	(7)	(6)	Pharmacology II

TOTAL CREDITS FOR THE THIRD YEAR: **123**

#### FOURTH YEAR

CODE	MODULE	NQF-L	CREDIT	PREREQUISITE MODULE(S)
CDG408P	Clinical Education and Mentoring I	(8)	(12)	Clinical Professional Practice III Clinical Science Practice III (at least one of the electives)
CLP408P	Clinical Professional Practice IV	(8)	(12)	Clinical Professional Practice III
HAM408P	Health Care Administration and Management II	(8)	(12)	Health Care Administration and Management I
MBH418P	Medical Law, Bio-Ethics and Human Rights IV (first-semester module)	(8)	(9)	Medical Law, Bio-Ethics and Human Rights III
PTS418P	Pathophysiology IV (first-semester module)	(8)	(12)	Anatomy and Physiology III (at least one of the electives) Pathophysiology III (at least one of the electives)
RPP408P	Research Principles IV and Project	(8)	(30)	Research Principles III

**plus one of the following modules:**

CCB408P	Biomedical Apparatus IV in: Critical Care	(8)	(12)	Biomedical Apparatus III in: Critical Care
CYB408P	Biomedical Apparatus IV in: Cardiology	(8)	(12)	Biomedical Apparatus III in: Cardiology
NEB408P	Biomedical Apparatus IV in: Nephrology	(8)	(12)	Biomedical Apparatus III in: Nephrology
NRB408P	Biomedical Apparatus IV in: Neurophysiology	(8)	(12)	Biomedical Apparatus III in: Neurophysiology
PLB408P	Biomedical Apparatus IV in: Pulmonology	(8)	(12)	Biomedical Apparatus III in: Pulmonology
RDB408P	Biomedical Apparatus IV in: Reproductive Biology	(8)	(12)	Biomedical Apparatus III in: Reproductive Biology
VAB408P	Biomedical Apparatus IV in: Cardiovascular Perfusion	(8)	(12)	Biomedical Apparatus III in: Cardiovascular Perfusion

**plus one of the following modules:**

CCE408P	Clinical Science Practice IV in: Critical Care	(8)	(24)	Clinical Science Practice III in: Critical Care
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CYE408P	Clinical Science Practice IV in: Cardiology	(8)	(24)	Clinical Science Practice III in: Cardiology
NEE408P	Clinical Science Practice IV in: Nephrology	(8)	(24)	Clinical Science Practice III in: Nephrology
NRE408P	Clinical Science Practice IV in: Neurophysiology	(8)	(24)	Clinical Science Practice III in: Neurophysiology
PLE408P	Clinical Science Practice IV in: Pulmonology	(8)	(24)	Clinical Science Practice III in: Pulmonology
RBE408P	Clinical Science Practice IV in: Reproductive Biology	(8)	(24)	Clinical Science Practice III in: Reproductive Biology
VAE408P	Clinical Science Practice IV in: Cardiovascular Perfusion	(8)	(24)	Clinical Science Practice III in: Cardiovascular Perfusion
TOTAL CREDITS FOR THE THIRD YEAR:			<b>123</b>	
TOTAL CREDITS FOR THE QUALIFICATION:			<b>496</b>	

## MODULE INFORMATION (OVERVIEW OF SYLLABUS)

The syllabus content is subject to change to accommodate industry changes. Please note that a more detailed syllabus is available at the Department or in the study guide that is applicable to a particular module. At time of publication, the syllabus content was defined as follows:

### A

#### **ANATOMY AND PHYSIOLOGY III IN: CARDIOLOGY (CYA307P) 1 X 3-HOUR PAPER** *(Module custodian: Department of Biomedical Sciences)*

This module prepares the student to demonstrate integrated knowledge of anatomy and physiology. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and transmission of information. (Total tuition time: not available)

#### **ANATOMY AND PHYSIOLOGY III IN: CARDIOVASCULAR PERFUSION (VAA307P) 1 X 3-HOUR PAPER** *(Module custodian: Department of Biomedical Sciences)*

This module prepares the student to demonstrate in-depth and integrated knowledge of the deeper concepts, facts of the physiological functions related to the human anatomy and physiology with the ability to competently manage the patient's physiological status during cardiopulmonary bypass surgery and other cardiac surgeries. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and transmission of information. Through this module, students will develop and enhance scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. (Total tuition time: not available)

#### **ANATOMY AND PHYSIOLOGY III IN: CRITICAL CARE (CCA307P) 1 X 3-HOUR PAPER** *(Module custodian: Department of Biomedical Sciences)*

This module prepares the student to demonstrate integrated knowledge of anatomy and physiology. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and transmission of information. This module is required to deepen the students' knowledge of anatomy and physiology in order to apply his/her knowledge in a Critical Care unit. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. (Total tuition time: not available)



**ANATOMY AND PHYSIOLOGY III IN: NEPHROLOGY (NEA307P) 1 X 3-HOUR PAPER**

**(Module custodian: Department of Biomedical Sciences)**

This module prepares the student to demonstrate integrated knowledge of anatomy and physiology. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and transmission of information. This module is required to deepen the students' knowledge of anatomy and physiology in order to apply his/her knowledge in a Critical Care unit. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. (Total tuition time: not available)

**ANATOMY AND PHYSIOLOGY III IN: NEUROPHYSIOLOGY (NRA307P) 1 X 3-HOUR PAPER**

**(Module custodian: Department of Biomedical Sciences)**

This module prepares the student to demonstrate integrated knowledge of anatomy and physiology. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and transmission of information. This module is required to deepen the students' knowledge of anatomy and physiology in order to apply his/her knowledge in a Neurophysiology unit. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. (Total tuition time: not available)

**ANATOMY AND PHYSIOLOGY III IN: PULMONOLOGY (PLA307P) 1 X 3-HOUR PAPER**

**(Module custodian: Department of Biomedical Sciences)**

This module prepares the student to demonstrate integrated knowledge of anatomy and physiology. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and transmission of information. This module is required to deepen the students' knowledge of anatomy and physiology in order to apply his/her knowledge in a Pulmonology unit. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. (Total tuition time: not available)

**ANATOMY AND PHYSIOLOGY III IN: REPRODUCTIVE BIOLOGY (RDA307P) 1 X 3-HOUR PAPER**

**(Module custodian: Department of Biomedical Sciences)**

This module prepares the student to demonstrate integrated knowledge of anatomy and physiology. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and transmission of information. This module is required to deepen the students' knowledge of anatomy and physiology in order to apply his/her knowledge in a Reproductive Biology unit. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. (Total tuition time: not available)

**B**

**BIOMEDICAL APPARATUS II (BAP206P) 1 X 3-HOUR PAPER**

**(Module custodian: Department of Biomedical Sciences)**

This module prepares the student to apply detailed knowledge of Biomedical Apparatus II in the field of Clinical Technology. The student will be able to apply his/her knowledge of biomedical apparatus, producers and techniques to be able to work in a multi-disciplinary environment. This module is further designed with the purpose to support learning directly and to provide the students with the applicable applied competencies to perform clinical procedures with the knowledge of Biomedical Apparatus II in a clinical facility. The student will be able to apply intergraded knowledge of Anatomy, Physiology and Pathophysiology within context of Biomedical apparatus and the procedures to follow. (Total tuition time: not available)



**BIOMEDICAL APPARATUS III IN: CARDIOLOGY (CYB307P)****1 X 3-HOUR PAPER****(Module custodian: Department of Biomedical Sciences)**

This module prepares the student to demonstrate integrated knowledge of Biomedical Apparatus in Cardiology. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and transmission of information. This module is required to deepen the students' knowledge of Biomedical Apparatus in order to apply his/her knowledge in a Cardiology unit. This module is further designed with the purpose to support learning directly and to provide the students with the applicable applied competencies, assessed in Clinical Science Practice III, in order to perform clinical procedures with the knowledge gained Biomedical Apparatus III. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. (Total tuition time: not available)

**BIOMEDICAL APPARATUS IV IN: CARDIOLOGY (CYB408P)****1 X 3-HOUR PAPER****(Module custodian: Department of Biomedical Sciences)**

This module prepares the student to demonstrate integrated knowledge of Biomedical Apparatus in Cardiology. This module deepens the student's knowledge of Biomedical Apparatus in order to apply his/her knowledge at the forefront in Cardiology. It is further designed with the purpose to support learning directly and to provide the students with the applicable applied competencies, assessed in the module. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. Finally, the student will be able to understand the complexities and uncertainties of performing therapeutic, corrective procedures and organ system support and its suitability to pathophysiological investigations in unfamiliar clinical contexts. (Total tuition time: not available)

**BIOMEDICAL APPARATUS III IN: CARDIOVASCULAR PERFUSION (VAB307P)****1 X 3-HOUR PAPER****(Module custodian: Department of Biomedical Sciences)**

This module prepares the student to demonstrate integrated knowledge of Biomedical Apparatus used during cardiovascular perfusion procedures. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and transmission of information. This module is required to deepen the students' knowledge of Biomedical Apparatus in order to apply his/her knowledge in a Cardiothoracic Surgery unit. This module is further designed with the purpose to support learning directly and to provide the students with the applicable applied competencies, assessed in Clinical Science Practice III, in order to perform clinical procedures with the knowledge gained through the module content. (Total tuition time: not available)

**BIOMEDICAL APPARATUS IV IN: CARDIOVASCULAR PERFUSION (VAB408P)****1 X 3-HOUR PAPER****(Module custodian: Department of Biomedical Sciences)**

This module prepares the student to demonstrate integrated, but specialised knowledge in the theories and principles of Biomedical Apparatus to be applied during Cardiovascular Perfusion procedures. This module is required to deepens the students' knowledge of Biomedical Apparatus in order to apply his/her knowledge at the forefront in Cardiovascular Perfusion. This module is further designed with the purpose to support learning directly and to provide the students with the applicable applied competencies, assessed in Clinical Science Practice IV, in order to perform clinical procedures with the knowledge gained Biomedical Apparatus IV. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. Finally, the student will be able to understand the complexities and uncertainties of performing therapeutic, corrective procedures and organ system support and its suitability to pathophysiological investigations in unfamiliar clinical contexts. (Total tuition time: not available)

**BIOMEDICAL APPARATUS III IN: CRITICAL CARE (CCB307P)****1 X 3-HOUR PAPER****(Module custodian: Department of Biomedical Sciences)**

This module prepares the student to demonstrate integrated knowledge of Biomedical Apparatus in Critical Care. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and transmission of information. This module is required to deepen the students' knowledge of Biomedical Apparatus in order to apply his/her knowledge in a Critical Care unit. This module is further designed with the purpose to support learning directly and to provide the students with the applicable applied competencies, assessed in Clinical Science Practice III, in order to perform clinical procedures with the knowledge gained Biomedical Apparatus III. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. (Total tuition time: not available)





**BIOMEDICAL APPARATUS IV IN: CRITICAL CARE (CCB408P)****1 X 3-HOUR PAPER*****(Module custodian: Department of Biomedical Sciences)***

This module prepares the student to demonstrate integrated knowledge of Biomedical Apparatus in Critical Care. This module is required to deepen the students' knowledge of Biomedical Apparatus in order to apply his/her knowledge at the forefront in a Critical Care. This module is further designed with the purpose to support learning directly and to provide the students with the applicable applied competencies, assessed in Clinical Science Practice IV, in order to perform clinical procedures with the knowledge gained Biomedical Apparatus IV. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. Finally, the student will be able to understand the complexities and uncertainties of performing therapeutic, corrective procedures and organ system support and its suitability to pathophysiological investigations in unfamiliar clinical contexts. (Total tuition time: not available)

**BIOMEDICAL APPARATUS III IN: NEPHROLOGY (NEB307P)****1 X 3-HOUR PAPER*****(Module custodian: Department of Biomedical Sciences)***

This module prepares the student to demonstrate integrated knowledge of Biomedical Apparatus in Nephrology. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and transmission of information. This module is required to deepen the students' knowledge of Biomedical Apparatus in order to apply his/her knowledge in a Nephrology unit. This module is further designed with the purpose to support learning directly and to provide the students with the applicable applied competencies, assessed in Clinical Science Practice III, in order to perform clinical procedures with the knowledge gained Biomedical Apparatus III. (Total tuition time: not available)

**BIOMEDICAL APPARATUS IV IN: NEPHROLOGY (NEB408P)****1 X 3-HOUR PAPER*****(Module custodian: Department of Biomedical Sciences)***

This module prepares the student to demonstrate integrated knowledge of Biomedical Apparatus in Nephrology. This module is required to deepen the students' knowledge of Biomedical Apparatus in order to apply his/her knowledge at the forefront in a Nephrology. This module is further designed with the purpose to support learning directly and to provide the students with the applicable applied competencies, assessed in Clinical Science Practice IV, in order to perform clinical procedures with the knowledge gained Biomedical Apparatus IV. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. Finally, the student will be able to understand the complexities and uncertainties of performing therapeutic, corrective procedures and organ system support and its suitability to pathophysiological investigations in unfamiliar clinical contexts. (Total tuition time: not available)

**BIOMEDICAL APPARATUS III IN: NEUROPHYSIOLOGY (NRB307P)****1 X 3-HOUR PAPER*****(Module custodian: Department of Biomedical Sciences)***

This module prepares the student to demonstrate integrated knowledge of Biomedical Apparatus in Neurophysiology. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and transmission of information. This module is required to deepen the students' knowledge of Biomedical Apparatus in order to apply his/her knowledge in a Neurophysiology unit. This module is further designed with the purpose to support learning directly and to provide the students with the applicable applied competencies, assessed in Clinical Science Practice III, in order to perform clinical procedures with the knowledge gained Biomedical Apparatus III. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. (Total tuition time: not available)

**BIOMEDICAL APPARATUS IV IN: NEUROPHYSIOLOGY (NRB408P)****1 X 3-HOUR PAPER*****(Module custodian: Department of Biomedical Sciences)***

This module prepares the student to demonstrate integrated knowledge of Biomedical Apparatus in Neurophysiology. This module is required to deepen the students' knowledge of Biomedical Apparatus in order to apply his/her knowledge at the forefront in a Neurophysiology. This module is further designed with the purpose to support learning directly and to provide the students with the applicable applied competencies, assessed in Clinical Science Practice IV, in order to perform clinical procedures with the knowledge gained Biomedical Apparatus IV. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. Finally, the student will be able to understand the complexities and uncertainties of performing therapeutic, corrective procedures and organ system support and its suitability to pathophysiological investigations in unfamiliar clinical contexts. (Total tuition time: not available)



**BIOMEDICAL APPARATUS III IN: PULMONOLOGY (PLB307P)****1 X 3-HOUR PAPER****(Module custodian: Department of Biomedical Sciences)**

This module prepares the student to demonstrate integrated knowledge of Biomedical Apparatus in Pulmonology. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and transmission of information. This module is required to deepen the students' knowledge of Biomedical Apparatus in order to apply his/her knowledge in a Pulmonology unit. This module is further designed with the purpose to support learning directly and to provide the students with the applicable applied competencies, assessed in Clinical Science Practice III, in order to perform clinical procedures with the knowledge gained Biomedical Apparatus III. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. (Total tuition time: not available)

**BIOMEDICAL APPARATUS IV IN: PULMONOLOGY (PLB408P)****1 X 3-HOUR PAPER****(Module custodian: Department of Biomedical Sciences)**

This module prepares the student to demonstrate integrated knowledge of Biomedical Apparatus in Pulmonology. This module is required to deepen the students' knowledge of Biomedical Apparatus in order to apply his/her knowledge at the forefront in a Pulmonology. This module is further designed with the purpose to support learning directly and to provide the students with the applicable applied competencies, assessed in Clinical Science Practice IV, in order to perform clinical procedures with the knowledge gained Biomedical Apparatus IV. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. Finally, the student will be able to understand the complexities and uncertainties of performing therapeutic, corrective procedures and organ system support and its suitability to pathophysiological investigations in unfamiliar clinical contexts. (Total tuition time: not available)

**BIOMEDICAL APPARATUS III IN: REPRODUCTIVE BIOLOGY (RDB307P)****1 X 3-HOUR PAPER****(Module custodian: Department of Biomedical Sciences)**

This module prepares the student to demonstrate integrated knowledge of Biomedical Apparatus in Reproductive Biology. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and transmission of information. This module is required to deepen the students' knowledge of Biomedical Apparatus in order to apply his/her knowledge in a Reproductive Biology unit. This module is further designed with the purpose to support learning directly and to provide the students with the applicable applied competencies, assessed in Clinical Science Practice III, in order to perform clinical procedures with the knowledge gained Biomedical Apparatus III. (Total tuition time: not available)

**BIOMEDICAL APPARATUS IV IN: REPRODUCTIVE BIOLOGY (RDB408P)****1 X 3-HOUR PAPER****(Module custodian: Department of Biomedical Sciences)**

This module prepares the student to demonstrate integrated knowledge of Biomedical Apparatus in Reproductive Biology. This module is required to deepen the students' knowledge of Biomedical Apparatus in order to apply his/her knowledge at the forefront in a Reproductive Biology. This module is further designed with the purpose to support learning directly and to provide the students with the applicable applied competencies, assessed in Clinical Science Practice IV, in order to perform clinical procedures with the knowledge gained Biomedical Apparatus IV. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. Finally, the student will be able to understand the complexities and uncertainties of performing therapeutic, corrective procedures and organ system support and its suitability to pathophysiological investigations in unfamiliar clinical contexts. (Total tuition time: not available)

**C****CHEMISTRY FOR HEALTH SCIENCES I (CHS115P)****1 X 3-HOUR PAPER****(Module custodian: Department of Chemistry)**

The student will be able to apply his/her knowledge of atomic theory, nomenclature, stoichiometry, chemical equilibrium, organic chemistry and gases and liquids to basic chemistry related problems. Upon completion, the student will be able to discuss fundamental concepts in chemistry and do related calculations. (Total tuition time: not available) (Total tuition time: not available)



**CLINICAL EDUCATION AND MENTORING I (CDG408P)****CONTINUOUS ASSESSMENT*****(Module custodian: Department of Biomedical Sciences)***

The student will be able to apply his/her knowledge of Work Integrated Learning, Strategies of teaching and learning, Clinical assessment practices, Reflection-in and -on learning experiences, as well as the successful mentoring and coaching of students during the clinical training phase. Furthermore, through the integration of the theoretical and practical component of this module, the student will acquire knowledge, skills, and values in clinical practice to manage him/herself on an elevated professional level, as well as the awareness to take responsibility for the learning of others in a professional career environment, contributing to high quality clinical technology education. (Total tuition time: not available)

**CLINICAL PROFESSIONAL PRACTICE I (CLP105P)****CONTINUOUS ASSESSMENT*****(Module custodian: Department of Biomedical Sciences)***

The student will be able to demonstrate the ability to take account of and act in accordance with prescribed health and medical organisations as well as the professional ethics codes of conduct, values and practices. Through this module, students will obtain the ability to communicate information reliably, accurately and coherently as well as the ability to account for their actions. Finally, the student should understand the relationship of the anatomical and physiological systems during emergency medical care. (Total tuition time: not available)

**CLINICAL PROFESSIONAL PRACTICE II (CLP206P)****CONTINUOUS ASSESSMENT*****(Module custodian: Department of Biomedical Sciences)***

The student will be able to demonstrate an understanding of the ethical implications of decisions and actions as well as the complexity of ethical dilemmas. Through this module, a student will obtain the ability to present and communicate complex medical information reliably. Finally, the student should understand the relationships between organ systems during emergency medical care. (Total tuition time: not available)

**CLINICAL PROFESSIONAL PRACTICE III (CLP307P)****CONTINUOUS ASSESSMENT*****(Module custodian: Department of Biomedical Sciences)***

The student will be able to demonstrate the ability to take decisions and act ethically and professionally in a familiar healthcare environment. Through this module, a student will obtain the ability to communicate ideas and opinions in well-formed oral and written arguments and facilitate collaborative learning. Finally, the student should recognise that problem solving does not occur in isolation, and manage clinical procedures in dynamic emergency medical care environments. (Total tuition time: not available)

**CLINICAL PROFESSIONAL PRACTICE IV (CLP408P)****CONTINUOUS ASSESSMENT*****(Module custodian: Department of Biomedical Sciences)***

The student will be able to demonstrate the ability to identify and address ethical and legal issues based on critical reflection in an unfamiliar healthcare environment. Through this module, a student will obtain the ability to communicate accurate academic and professional information and knowledge as well as design and implement appropriate teaching strategies. Finally, the student should recognise that problem solving does not occur in isolation, and manage emergency procedures in dynamic medical care environments. (Total tuition time: not available)

**CLINICAL SCIENCE PRACTICE II (CLC206P)****CONTINUOUS ASSESSMENT*****(Module custodian: Department of Biomedical Sciences)***

The student will be able to apply his/her knowledge of Clinical Science Practice, producers and techniques to be able to work in a multi-disciplinary environment. This module is further designed with the purpose to support learning directly and to provide the students with the applicable applied competencies to perform clinical procedures with the knowledge of in a clinical facility. The student will be able to apply his/her knowledge of Anatomy, Physiology, Biomedical Apparatus and Procedures II and Pathophysiology with in a clinical facility. (Total tuition time: not available)



**CLINICAL SCIENCE PRACTICE III IN: CARDIOLOGY (CYE307P)**  
**(Module custodian: Department of Biomedical Sciences)**

**CONTINUOUS ASSESSMENT**

This module requires the student to demonstrate an understanding of the range of methods of performing therapeutic, corrective procedures and organ system support and its suitability to pathophysiological investigations in a familiar clinical situation. The student should show the ability to apply problem solving skills, as well as to produce and communicate information when performing diagnostic and therapeutic procedures in the field of Cardiology. The student will be required to show integrated knowledge of Human Anatomy, Human Physiology, Pathophysiology, Biomedical Apparatus, and Pharmacology in Cardiology to interpret the necessary data gathered in order to assist in making a diagnoses and or treat patients with various pathological conditions in a familiar clinical environment. The student will demonstrate a holistic approach with regards to the patients' basic needs. This module will focus on evaluating students' upon their ability to accurately perform and apply their knowledge of cardiology procedures in a clinical environment. (Total tuition time: not available)

**CLINICAL SCIENCE PRACTICE IV IN: CARDIOLOGY (CYE408P)**  
**(Module custodian: Department of Biomedical Sciences)**

**CONTINUOUS ASSESSMENT**

This module requires the student to demonstrate an understanding of the complexities and uncertainties of performing therapeutic, corrective procedures and organ system support and its suitability to pathophysiological investigations in unfamiliar clinical environment. The student should show the ability to apply problem solving skills, as well as to produce and communicate information when performing diagnostic and therapeutic procedures in the field of Cardiology. The student will be required to show integrated knowledge of Human Anatomy, Human Physiology, Pathophysiology, Biomedical Apparatus, and Pharmacology in Cardiology to interpret the necessary data gathered in order to assist in making a diagnoses and or treat patients with various pathological conditions in unfamiliar clinical environment. The student should demonstrate a holistic approach regarding patients' needs, in an ethical and professional manner. This module will focus on evaluating students' ability to accurately perform interpret, analyse and troubleshoot during specialised cardiology procedures in an unfamiliar clinical environment. (Total tuition time: not available)

**CLINICAL SCIENCE PRACTICE III IN: CARDIOVASCULAR PERFUSION (VAE307P)**  
**(Module custodian: Department of Biomedical Sciences)**

**CONTINUOUS ASSESSMENT**

This module requires the student to demonstrate an understanding of the range of methods of performing therapeutic, corrective procedures and organ system support and its suitability to patho-physiological investigations in a familiar clinical situation. The student should show the ability to apply problem solving skills, as well as to produce and communicate information when performing diagnostic and therapeutic procedures in the field of Cardiovascular perfusion. The student will be required to show integrated knowledge of Human Anatomy, Human Physiology, Pathophysiology, Biomedical Apparatus, and Pharmacology in Cardiovascular perfusion to interpret the necessary data gathered in order to assist in making a diagnoses and or treat patients with various pathological conditions in a familiar clinical environment. The student will demonstrate a holistic approach with regards to the patients' basic needs. This module will focus on evaluating students' upon their ability to accurately perform and apply their knowledge of cardiovascular perfusion procedures in a clinical environment. (Total tuition time: not available)

**CLINICAL SCIENCE PRACTICE IV IN: CARDIOVASCULAR PERFUSION (VAE408P)**  
**(Module custodian: Department of Biomedical Sciences)**

**CONTINUOUS ASSESSMENT**

This module requires the student to demonstrate an understanding of the complexities and uncertainties of performing therapeutic, corrective procedures and organ system support and its suitability to pathophysiological investigations in unfamiliar clinical environment. The student should show the ability to apply problem solving skills, as well as to produce and communicate information when performing diagnostic and therapeutic procedures in the field of Cardiovascular Perfusion. The student will be required to show integrated knowledge of Human Anatomy, Human Physiology, Pathophysiology, Biomedical Apparatus, and Pharmacology in Cardiovascular Perfusion to interpret the necessary data gathered in order to assist in making a diagnoses and or treat patients with various pathological conditions in unfamiliar clinical environment. The student should demonstrate a holistic approach regarding patients' needs, in an ethical and professional manner. This module will focus on evaluating students' ability to accurately perform interpret, analyse and troubleshoot during specialised Cardiovascular Perfusion procedures in an unfamiliar clinical environment. (Total tuition time: not available)



**CLINICAL SCIENCE PRACTICE III IN: CRITICAL CARE (CCE307P)      CONTINUOUS ASSESSMENT**  
**(Module custodian: Department of Biomedical Sciences)**

This module requires the student to demonstrate an understanding of the range of methods of performing therapeutic, corrective procedures and organ system support and its suitability to pathophysiological investigations in a familiar clinical situation. The student should show the ability to apply problem solving skills, as well as to produce and communicate information when performing diagnostic and therapeutic procedures in the field of Critical Care. The student will be required to show integrated knowledge of Human Anatomy, Human Physiology, Pathophysiology, Biomedical Apparatus, and Pharmacology in Critical Care to interpret the necessary data gathered in order to assist in making a diagnoses and or treat patients with various pathological conditions in a familiar clinical environment. The student will demonstrate a holistic approach with regards to the patients' basic needs. This module will focus on evaluating students' upon their ability to accurately perform and apply their knowledge of Critical Care procedures in a clinical environment. (Total tuition time: not available)

**CLINICAL SCIENCE PRACTICE IV IN: CRITICAL CARE (CCE408P)      CONTINUOUS ASSESSMENT**  
**(Module custodian: Department of Biomedical Sciences)**

This module requires the student to demonstrate an understanding of the complexities and uncertainties of performing therapeutic, corrective procedures and organ system support and its suitability to pathophysiological investigations in unfamiliar clinical environment. The student should show the ability to apply problem solving skills, as well as to produce and communicate information when performing diagnostic and therapeutic procedures in the field of Critical Care. The student will be required to show integrated knowledge of Human Anatomy, Human Physiology, Pathophysiology, Biomedical Apparatus, and Pharmacology in Critical Care to interpret the necessary data gathered in order to assist in making a diagnoses and or treat patients with various pathological conditions in unfamiliar clinical environment. The student should demonstrate a holistic approach regarding patients' needs, in an ethical and professional manner. This module will focus on evaluating students' ability to accurately perform interpret, analyse and troubleshoot during specialised Critical Care procedures in an unfamiliar clinical environment. (Total tuition time: not available)

**CLINICAL SCIENCE PRACTICE III IN: NEPHROLOGY (NEE307P)      CONTINUOUS ASSESSMENT**  
**(Module custodian: Department of Biomedical Sciences)**

This module requires the student to demonstrate an understanding of the range of methods of performing therapeutic, corrective procedures and organ system support and its suitability to pathophysiological investigations in a familiar clinical situation. The student should show the ability to apply problem solving skills, as well as to produce and communicate information when performing diagnostic and therapeutic procedures in the field of Nephrology. The student will be required to show integrated knowledge of Human Anatomy, Human Physiology, Pathophysiology, Biomedical Apparatus, and Pharmacology in Nephrology to interpret the necessary data gathered in order to assist in making a diagnoses and or treat patients with various pathological conditions in a familiar clinical environment. The student will demonstrate a holistic approach with regards to the patients' basic needs. This module will focus on evaluating students' upon their ability to accurately perform and apply their knowledge of Nephrology procedures in a clinical environment. (Total tuition time: not available)

**CLINICAL SCIENCE PRACTICE IV IN: NEPHROLOGY (NEE408P)      CONTINUOUS ASSESSMENT**  
**(Module custodian: Department of Biomedical Sciences)**

This module requires the student to demonstrate an understanding of the complexities and uncertainties of performing therapeutic, corrective procedures and organ system support and its suitability to pathophysiological investigations in unfamiliar clinical environment. The student should show the ability to apply problem solving skills, as well as to produce and communicate information when performing diagnostic and therapeutic procedures in the field of Nephrology. The student will be required to show integrated knowledge of Human Anatomy, Human Physiology, Pathophysiology, Biomedical Apparatus, and Pharmacology in Nephrology to interpret the necessary data gathered in order to assist in making a diagnoses and or treat patients with various pathological conditions in unfamiliar clinical environment. The student should demonstrate a holistic approach regarding patients' needs, in an ethical and professional manner. This module will focus on evaluating students' ability to accurately perform interpret, analyse and troubleshoot during specialised nephrology procedures in an unfamiliar clinical environment. (Total tuition time: not available)



**CLINICAL SCIENCE PRACTICE III IN:  
NEUROPHYSIOLOGY (NRE307P)****CONTINUOUS ASSESSMENT*****(Module custodian: Department of Biomedical Sciences)***

This module requires the student to demonstrate an understanding of the range of methods of performing therapeutic, corrective procedures and organ system support and its suitability to pathophysiological investigations in a familiar clinical situation. The student should show the ability to apply problem solving skills, as well as to produce and communicate information when performing diagnostic and therapeutic procedures in the field of Neurophysiology. The student will be required to show integrated knowledge of Human Anatomy, Human Physiology, Pathophysiology, Biomedical Apparatus, and Pharmacology in Neurophysiology to interpret the necessary data gathered in order to assist in making a diagnoses and or treat patients with various pathological conditions in a familiar clinical environment. The student will demonstrate a holistic approach with regards to the patients' basic needs. This module will focus on evaluating students' upon their ability to accurately perform and apply their knowledge of Neurophysiology procedures in a clinical environment. (Total tuition time: not available)

**CLINICAL SCIENCE PRACTICE IV IN:  
NEUROPHYSIOLOGY (NRE408P)****CONTINUOUS ASSESSMENT*****(Module custodian: Department of Biomedical Sciences)***

This module requires the student to demonstrate an understanding of the complexities and uncertainties of performing therapeutic, corrective procedures and organ system support and its suitability to pathophysiological investigations in unfamiliar clinical environment. The student should show the ability to apply problem solving skills, as well as to produce and communicate information when performing diagnostic and therapeutic procedures in the field of Neurophysiology. The student will be required to show integrated knowledge of Human Anatomy, Human Physiology, Pathophysiology, Biomedical Apparatus, and Pharmacology in Neurophysiology to interpret the necessary data gathered in order to assist in making a diagnoses and or treat patients with various pathological conditions in unfamiliar clinical environment. The student should demonstrate a holistic approach regarding patients' needs, in an ethical and professional manner. This module will focus on evaluating students' ability to accurately perform interpret, analyse and troubleshoot during specialised Neurophysiology procedures in an unfamiliar clinical environment. (Total tuition time: not available)

**CLINICAL SCIENCE PRACTICE III IN: PULMONOLOGY (PLE307P)****CONTINUOUS ASSESSMENT*****(Module custodian: Department of Biomedical Sciences)***

This module requires the student to demonstrate an understanding of the range of methods of performing therapeutic, corrective procedures and organ system support and its suitability to pathophysiological investigations in a familiar clinical situation. The student should show the ability to apply problem solving skills, as well as to produce and communicate information when performing diagnostic and therapeutic procedures in the field of Pulmonology. The student will be required to show integrated knowledge of Human Anatomy, Human Physiology, Pathophysiology, Biomedical Apparatus, and Pharmacology in Pulmonology to interpret the necessary data gathered in order to assist in making a diagnoses and or treat patients with various pathological conditions in a familiar clinical environment. The student will demonstrate a holistic approach with regards to the patients' basic needs. This module will focus on evaluating students' upon their ability to accurately perform and apply their knowledge of pulmonology procedures in a clinical environment. (Total tuition time: not available)

**CLINICAL SCIENCE PRACTICE IV IN: PULMONOLOGY (PLE408P)****CONTINUOUS ASSESSMENT*****(Module custodian: Department of Biomedical Sciences)***

This module requires the student to demonstrate an understanding of the complexities and uncertainties of performing therapeutic, corrective procedures and organ system support and its suitability to pathophysiological investigations in unfamiliar clinical environment. The student should show the ability to apply problem solving skills, as well as to produce and communicate information when performing diagnostic and therapeutic procedures in the field of Pulmonology. The student will be required to show integrated knowledge of Human Anatomy, Human Physiology, Pathophysiology, Biomedical Apparatus, and Pharmacology in Pulmonology to interpret the necessary data gathered in order to assist in making a diagnoses and or treat patients with various pathological conditions in unfamiliar clinical environment. The student should demonstrate a holistic approach regarding patients' needs, in an ethical and professional manner. This module will focus on evaluating students' ability to accurately perform interpret, analyse and troubleshoot during specialised pulmonology procedures in an unfamiliar clinical environment. (Total tuition time: not available)



**CLINICAL SCIENCE PRACTICE III IN: REPRODUCTIVE BIOLOGY (RBE307P)****CONTINUOUS ASSESSMENT****(Module custodian: Department of Biomedical Sciences)**

This module requires the student to demonstrate an understanding of the range of methods of performing therapeutic, corrective procedures and organ system support and its suitability to pathophysiological investigations in a familiar clinical situation. The student should show the ability to apply problem solving skills, as well as to produce and communicate information when performing diagnostic and therapeutic procedures in the field of Reproductive biology. The student will be required to show integrated knowledge of Human Anatomy, Human Physiology, Pathophysiology, Biomedical Apparatus, and Pharmacology in Reproductive biology to interpret the necessary data gathered in order to assist in making a diagnoses and or treat patients with various pathological conditions in a familiar clinical environment. The student will demonstrate a holistic approach with regards to the patients' basic needs. This module will focus on evaluating students' upon their ability to accurately perform and apply their knowledge of Reproductive biology procedures in a clinical environment. (Total tuition time: not available)

**CLINICAL SCIENCE PRACTICE IV IN: REPRODUCTIVE BIOLOGY (RBE408P)****CONTINUOUS ASSESSMENT****(Module custodian: Department of Biomedical Sciences)**

This module requires the student to demonstrate an understanding of the complexities and uncertainties of performing therapeutic, corrective procedures and organ system support and its suitability to pathophysiological investigations in unfamiliar clinical environment. The student should show the ability to apply problem solving skills, as well as to produce and communicate information when performing diagnostic and therapeutic procedures in the field of Reproductive Biology. The student will be required to show integrated knowledge of Human Anatomy, Human Physiology, Pathophysiology, Biomedical Apparatus, and Pharmacology in Reproductive Biology to interpret the necessary data gathered in order to assist in making a diagnoses and or treat patients with various pathological conditions in unfamiliar clinical environment. The student should demonstrate a holistic approach regarding patients' needs, in an ethical and professional manner. This module will focus on evaluating students' ability to accurately perform interpret, analyse and troubleshoot during specialised Reproductive Biology procedures in an unfamiliar clinical environment. (Total tuition time: not available)

**COMMUNICATION FOR ACADEMIC PURPOSES (CAP105X)****1 X 3-HOUR PAPER****(Module custodian: Department of Applied Languages)**

A workable knowledge of English is an essential skill for any graduate who is required to conduct themselves successfully in a professional working environment. This module will equip students with the competencies required to compose a selection of written texts related to communicating both internally and externally within a professional environment. In addition, the module includes strategies that are essential for the effective communication in various situations, including small groups to avoid unproductive conflict, a multicultural context, etc. (Total tuition time: not available)

**COMPUTER LITERACY (CPL105X)****CONTINUOUS ASSESSMENT****(Module custodian: End User Computing Unit)**

Introduction of information literacy. Development of a search strategy and application of a search string to search engines and academic databases. Evaluation of information sources. Ethical and legal use of information. (Total tuition time: not available)

**F****FOUNDATION LIFE SKILLS (FLF125P)****CONTINUOUS ASSESSMENT****(Module custodian: Directorate of Student Development and Support)**

Academic, personal and socio-emotional skills development for students in higher education. Personal and social dimensions address: effective planning and self-management (goal setting and time management); Adjusting to university life (student life, diversity and change); Intra- and interpersonal skills development (conflict management, self-esteem, relationship management); Effective living (healthy living, HIV education, substance abuse); Academic dimension addresses: academic skills for university (e.g. critical thinking, creativity, managing assignments and assessments). (Total tuition time: not available)

**HEALTH CARE ADMINISTRATION AND MANAGEMENT I (HAM307P) CONTINUOUS ASSESSMENT**  
**(Module custodian: Department of Management and Entrepreneurship)**

The student will be able to demonstrate integrated knowledge and the application of strategic management processes, different management models, importance and utilization of human resources within a health care environment. This module prepares the student to enter the medical profession. (Total tuition time: not available)

**HEALTH CARE ADMINISTRATION AND MANAGEMENT II (HAM408P) CONTINUOUS ASSESSMENT**  
**(Module custodian: Department of Management and Entrepreneurship)**

This module provides the student with the theoretical underpinnings of the field of health care administration management and to provide guidance on governing and managing within a business. Furthermore, this module will assist in developing the skills necessary to make administrative and management decisions and to manage the myriad of managerial dilemmas that is faced by managers. (Total tuition time: not available)

**HUMAN ANATOMY I (HAN105P) 1 X 3-HOUR PAPER**  
**(Module custodian: Department of Biomedical Sciences)**

This module prepares the student to enter the medical profession. The student will be able to understand and apply his/her knowledge of cellular components, tissue and organ systems to and overall perspective of a healthy human necessary in the medical community. Upon completion, the student will be able to understand important cellular concepts, identify all bones, muscles, nerves and have a sound basis of each organ system. Students will also have mastered the practical skills to be confident in all human body structures and location. (Total tuition time: not available)

**HUMAN ANATOMY II (HAN206P) 1 X 3-HOUR PAPER**  
**(Module custodian: Department of Biomedical Sciences)**

This module builds on prior knowledge of human anatomy and physiology. Upon completion, the student will be able to apply his/her knowledge of cellular components, tissue and organ systems to and overall perspective of a healthy human necessary in the medical community. Upon completion, the student will be able to understand important cellular concepts, identify all bones, muscles, nerves and have a sound basis of each organ system which includes the embryological development of each system. Students will also have mastered the practical skills to be confident in identifying all human body structures and location. (Total tuition time: not available)

**HUMAN PHYSIOLOGY I (HPY105P) 1 X 3-HOUR PAPER**  
**(Module custodian: Department of Biomedical Sciences)**

The student will be able to apply his/her knowledge of the organisation of the human body, principles of support and movement, control systems of the human body such as the skeletal-, cardiac-, endocrine-, and nervous system, maintenance of the human body, and continuity in theoretical and practical contexts contributing to the body of knowledge necessary in the medical community. Upon completion, the student will be able to identify, explain and apply concepts and processes related to physiology, their control and regulation such as homeostasis, nutrition, movement and reproduction and distinguish between mechanical, biochemical and physical functions in a living system and how each system integrates with other systems in the human body. Students will also have the practical skills to be confident in all human body functions and their roles. (Total tuition time: not available)

**HUMAN PHYSIOLOGY II (HPY206P) 1 X 3-HOUR PAPER**  
**(Module custodian: Department of Biomedical Sciences)**

The student should demonstrate detailed knowledge of the human body's cellular and chemical organisation, the principles of support and movement, the control and maintenance of the human body through the various organ systems, pathophysiology of organ systems and continuity contributing to their understanding of the physiology of a healthy human body. Upon completion, the student will be able to identify, explain and apply concepts and principles of organisation of the human body, control-, maintenance-, and pathophysiology of organ systems, sensory organs and continuity to the extent that they are able to successfully undertake various discipline specific modules related to human physiology. Students will also have the practical skills to be confident in all human body functions and their roles and apply this knowledge in a clinical setting. (Total tuition time: not available)



**M****MATHEMATICS AND STATISTICS I (MAS105X)****1 X 3-HOUR PAPER***(Module custodian: Department of Mathematics and Statistics)*

Numerical computations, mensuration, equations, functions, descriptive statistics, linear regression and curve fitting. (Total tuition time: not available)

**MEDICAL LAW, BIO-ETHICS AND HUMAN RIGHTS I (MBH115P)****CONTINUOUS ASSESSMENT****MEDICAL LAW, BIO-ETHICS AND HUMAN RIGHTS II (MBH216P)****CONTINUOUS ASSESSMENT****MEDICAL LAW, BIO-ETHICS AND HUMAN RIGHTS III (MBH317P)****CONTINUOUS ASSESSMENT****MEDICAL LAW, BIO-ETHICS AND HUMAN RIGHTS IV (MBH418P)****CONTINUOUS ASSESSMENT***(Module custodian: Department of Biomedical Sciences)*

This module prepares students to acquire knowledge that achieves deep learning and fundamental understanding of medical law, bioethics and human rights. The student will be able to apply his/her knowledge of medical law, bioethics and human rights to clinical professional practice in a healthcare context. The module will present the following main learning areas: 1. Medical law, specifically legal principles and business law; and 2. Bioethics and human rights, specifically the morality and ethics, moral theories, integrity, human rights and bioethics principles, required for a Clinical Technologist to function independently in the healthcare fraternity and to demonstrate the ability to work in medical and business practice contexts from a framework of medical law, bioethics and human rights. The module will further serve to build upon initial requirements of medical law and bioethics concepts progressing to a deep understanding of the fundamental principles about bioethics, integrity and moral reasoning in the health care and health research environment. (Total tuition time: not available)

**P****PATHOPHYSIOLOGY II (PTS206P)****1 X 3-HOUR PAPER***(Module custodian: Department of Biomedical Sciences)*

This module prepares the student to obtain detailed knowledge, apply problem solving skills, as well as to produce and communicate information in the field of pathophysiology. The student will be able to apply his/her knowledge of Anatomy and Physiology to the disordered anatomical and physiological processes associated with disease or injury. (Total tuition time: not available)

**PATHOPHYSIOLOGY III IN: CARDIOLOGY (CYP307P)****1 X 3-HOUR PAPER***(Module custodian: Department of Biomedical Sciences)*

This module prepares the student to demonstrate integrated knowledge of pathophysiology. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and transmission of information. This module is required to deepen the students' knowledge of pathophysiology in order to apply his/her knowledge in a Cardiology unit. (Total tuition time: not available)

**PATHOPHYSIOLOGY III IN: CARDIOVASCULAR PERFUSION (VAP307P)****1 X 3-HOUR PAPER***(Module custodian: Department of Biomedical Sciences)*

This module prepares the student to demonstrate integrated knowledge of pathophysiology. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and transmission of information. This module is required to deepen the students' knowledge of pathophysiology in order to apply his/her knowledge in a Cardiovascular Perfusion unit. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. (Total tuition time: not available)

**PATHOPHYSIOLOGY III IN: CRITICAL CARE (CCP307P)****1 X 3-HOUR PAPER***(Module custodian: Department of Biomedical Sciences)*

This module prepares the student to demonstrate integrated knowledge of pathophysiology. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and transmission of information. This module is required to deepen the students' knowledge of pathophysiology in order to apply his/her knowledge in a Critical Care unit. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. (Total tuition time: not available)



**PATHOPHYSIOLOGY III IN: NEPHROLOGY (NEP307P)****1 X 3-HOUR PAPER*****(Module custodian: Department of Biomedical Sciences)***

This module demonstrate integrated knowledge of pathophysiology. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and trans-mission of information. This module is required to deepen the students' knowledge of pathophysiology in order to apply his/her knowledge in a Nephrology unit. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. (Total tuition time: not available)

**PATHOPHYSIOLOGY III IN: NEUROPHYSIOLOGY (NRP307P)****1 X 3-HOUR PAPER*****(Module custodian: Department of Biomedical Sciences)***

This module prepares the student to demonstrate integrated knowledge of pathophysiology. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and transmission of information. This module is required to deepen the students' knowledge of pathophysiology in order to apply his/her knowledge in a Neurophysiology unit. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. (Total tuition time: not available)

**PATHOPHYSIOLOGY III IN: PULMONOLOGY (PLP307P)****1 X 3-HOUR PAPER*****(Module custodian: Department of Biomedical Sciences)***

This module prepares the student to demonstrate integrated knowledge of pathophysiology. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and transmission of information. This module is required to deepen the students' knowledge of pathophysiology in order to apply his/her knowledge in a Pulmonology unit. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. (Total tuition time: not available)

**PATHOPHYSIOLOGY III IN: REPRODUCTIVE BIOLOGY (RBP307P)****1 X 3-HOUR PAPER*****(Module custodian: Department of Biomedical Sciences)***

This module prepares the student to demonstrate integrated knowledge of pathophysiology. The student should further be able to evaluate different sources of information, to select information appropriate to the task, and to apply well developed processes of analysis, synthesis, evaluation and transmission of information. This module is required to deepen the students' knowledge of pathophysiology in order to apply his/her knowledge in a Reproductive Biology unit. Through this module, students will develop and enhance their scientific and professional skills in communication and writing; management of learning, as well as accountable decisions and actions in the real world of work. (Total tuition time: not available)

**PATHOPHYSIOLOGY IV (PTS418P)****1 X 3-HOUR PAPER*****(Module custodian: Department of Biomedical Sciences)***

This module prepares the student to have detailed knowledge, apply problem solving skills, as well as produce and communicate information in the field of pathophysiology. The student will be able to apply his/her specialised knowledge of Anatomy and Physiology to the disordered anatomical and physiological processes associated with disease or injury in both adults and paediatrics as well as specialised pathologies in a field of specialisation. This module will prepare the student to develop the ability to apply their knowledge of pathophysiology in a real world environment in their field of specialisation. (Total tuition time: not available)

**PHARMACOLOGY II (PMY206P)****1 X 3-HOUR PAPER*****(Module custodian: Department of Pharmaceutical Sciences)***

This module prepares the student to acquire an informed understanding of the basic principles of pharmacology, common organ system conditions and their treatment. The student will be able to demonstrate the ability to select and apply the correct pharmacological agents for the appropriate disease profile. Through this module, students will obtain the ability to integrate aspects of anatomy, physiology, pathophysiology and pharmacology in their field of study. Relevance of pharmacology is in line with national clinical needs and biomedical professional policies and procedures, and suitable resources need to be critically evaluated and used to facilitate the pharmacology as a speciality on postgraduate level. (Total tuition time: not available)



**PHARMACOLOGY III IN: CARDIOLOGY (CYH317P)****1 X 3-HOUR PAPER*****(Module custodian: Department of Pharmaceutical Sciences)***

This module prepares the student to acquire an informed understanding of the basic principles of pharmacology in cardiology, common cardiovascular conditions and their treatment. The student will be able to demonstrate the ability to select and apply the correct pharmacological agents for the appropriate disease profile. Through this module, students will obtain the ability to integrate aspects of anatomy, physiology, pathophysiology and pharmacology in their field of study. Relevance of pharmacology in cardiology is in line with national clinical needs and health professional policies and procedures, and suitable resources need to be critically evaluated and used to facilitate cardiology as a speciality. (Total tuition time: not available)

**PHARMACOLOGY III IN: CARDIOVASCULAR PERFUSION (VAH317P)****1 X 3-HOUR PAPER*****(Module custodian: Department of Pharmaceutical Sciences)***

This module prepares the student to acquire an integrated knowledge and understanding of facts and principles related to the pharmacology in Cardiovascular Perfusion. The module content entails common cardiovascular conditions and their management. The student will be able to demonstrate the ability to select and apply the correct pharmacological agents for the appropriate disease profile. Through this module, students will obtain the ability to integrate aspects of human anatomy, human physiology, pathophysiology and pharmacology in this field of study. Relevance of pharmacology in cardiovascular perfusion is in line with national clinical needs and health professional policies and procedures, and suitable resources need to be critically evaluated and used to facilitate cardiovascular perfusion as a speciality. (Total tuition time: not available)

**PHARMACOLOGY III IN: CRITICAL CARE (CCH317P)****1 X 3-HOUR PAPER*****(Module custodian: Department of Pharmaceutical Sciences)***

This module prepares the student to acquire an informed understanding of the basic principles of pharmacology in critical care, common critical care conditions and their treatment. The student will be able to demonstrate the ability to select and apply the correct pharmacological agents for the appropriate disease profile. Through this module, students will obtain the ability to integrate aspects of anatomy, physiology, pathophysiology and pharmacology in their field of study. Relevance of pharmacology in critical care is in line with national clinical needs and health professional policies and procedures, and suitable resources need to be critically evaluated and used to facilitate critical care as a speciality. (Total tuition time: not available)

**PHARMACOLOGY III IN: NEPHROLOGY (NEH317P)****1 X 3-HOUR PAPER*****(Module custodian: Department of Pharmaceutical Sciences)***

This module prepares the student to acquire an informed understanding of the basic principles of pharmacology in nephrology, common nephrology conditions and their treatment. The student will be able to demonstrate the ability to select and apply the correct pharmacological agents for the appropriate disease profile. Through this module, students will obtain the ability to integrate aspects of anatomy, physiology, pathophysiology and pharmacology in their field of study. Relevance of pharmacology in nephrology is in line with national clinical needs and health professional policies and procedures, and suitable resources need to be critically evaluated and used to facilitate nephrology as a speciality. (Total tuition time: not available)

**PHARMACOLOGY III IN: NEUROPHYSIOLOGY (NRH317P)****1 X 3-HOUR PAPER*****(Module custodian: Department of Pharmaceutical Sciences)***

This module prepares the student to acquire an informed understanding of the basic principles of pharmacology in Neurophysiology, common Neurophysiology conditions and their treatment. The student will be able to demonstrate the ability to select and apply the correct pharmacological agents for the appropriate disease profile. Through this module, students will obtain the ability to integrate aspects of anatomy, physiology, pathophysiology and pharmacology in their field of study. Relevance of pharmacology in Neurophysiology is in line with national clinical needs and health professional policies and procedures, and suitable resources need to be critically evaluated and used to facilitate Neurophysiology as a speciality. (Total tuition time: not available)

**PHARMACOLOGY III IN: PULMONOLOGY (PLH317P)****1 X 3-HOUR PAPER*****(Module custodian: Department of Pharmaceutical Sciences)***

This module prepares the student to acquire an informed understanding of the basic principles of pharmacology in pulmonology, common pulmonology conditions and their treatment. The student will be able to demonstrate the ability to select and apply the correct pharmacological agents for the appropriate disease profile. Through this module, students will obtain the ability to integrate aspects of anatomy, physiology, pathophysiology and pharmacology in their field of study. Relevance of pharmacology in pulmonology is in line with national clinical needs and health professional policies and procedures, and suitable resources need to be critically evaluated and used to facilitate pulmonology as a speciality. (Total tuition time: not available)



**PHARMACOLOGY III IN: REPRODUCTIVE BIOLOGY (RBH317P)****1 X 3-HOUR PAPER****(Module custodian: Department of Pharmaceutical Sciences)**

This module which prepares the student to acquire an informed understanding of the basic principles of pharmacology in Reproductive Biology, common Reproductive Biology conditions and their treatment. The student will be able to demonstrate the ability to select and apply the correct pharmacological agents for the appropriate disease profile. Through this module, students will obtain the ability to integrate aspects of anatomy, physiology, pathophysiology and pharmacology in their field of study. Relevance of pharmacology in Reproductive Biology is in line with national clinical needs and health professional policies and procedures, and suitable resources need to be critically evaluated and used to facilitate Reproductive Biology as a speciality. (Total tuition time: not available)

**PHYSICS FOR HEALTH SCIENCES I (PHS115P)****1 X 3-HOUR PAPER****(Module custodian: Department of Physics)**

This module is aimed at enhancing student knowledge in fundamental concepts in mechanics, mechanical properties of fluids, thermal properties of matter, general and geometrical properties of waves, static electricity and electric circuits and their applications thereof. (Total tuition time: not available)

**R****RESEARCH PRINCIPLES I (RPL115P)****CONTINUOUS ASSESSMENT****(Module custodian: Department of Biomedical Sciences)**

This module prepares the student to acquire an informed understanding of the basic principles of research and academic writing to include definitions, characteristics, as well as the concepts of scholarly writing, scholarly literature, the methodologies and designs. The student will be able to demonstrate the ability to select and apply the correct academic writing principles, citation methods, and procedures in order to avoid any form of plagiarism. Through this module, students will obtain the ability to integrate aspects of research principles and methodology in their field of study. Relevance of research is in line with national needs and biomedical ethical policies and procedures, and suitable resources need to be critically evaluated and used to facilitate the research project on postgraduate level. (Total tuition time: not available)

**RESEARCH PRINCIPLES II (RPL216P)****CONTINUOUS ASSESSMENT****(Module custodian: Department of Biomedical Sciences)**

This module prepares the student to demonstrate detailed understanding and knowledge of the main areas of research principles and the ability to apply concepts, principles and theories related to the framework of a research proposal, the different research methodologies and designs, as well as data collection principles, analysis, reliability, validity, rigour, trustworthiness, budget and funding. Through this module, the student will demonstrate understanding of the research problem and objectives within the context of a particular research methodology, as well as the ability to evaluate, select and apply the optimal sampling procedures, data collection principles relevant to a research methodology and design. Knowledge and the ability to analyse, synthesise, and evaluate information from different sources of scholarly academic information, including definitions, criteria, purposes, questionnaire designs, data collection principles and methods for the application during the research process will be obtained in preparation to the next level of research principles and procedures to follow. (Total tuition time: not available)

**RESEARCH PRINCIPLES III (RPL307P)****CONTINUOUS ASSESSMENT****(Module custodian: Department of Biomedical Sciences)**

This module prepares the student to demonstrate integrated knowledge of the central and crucial areas of research principles and methodologies including the ability to apply concepts, principles and theories necessary for the compilation of a research proposal in the context of an academic and/or health science related environment. Through this module, students will gain understanding of the roles and responsibilities pertaining to the research supervisor and the researcher. Students will learn to differentiate between research methods and their suitability and ability to resolve specific research enquiries, act ethically and professionally with dignity and integrity, as well as to manage the processing of gathered data through advanced bio-statistical methods. (Total tuition time: not available)

**RESEARCH PRINCIPLES IV AND PROJECT (RPP408P)**  
***(Module custodian: Department of Biomedical Sciences)***

**CONTINUOUS ASSESSMENT**

This module prepares the student to demonstrate knowledge of and engagement in the advanced aspects of research principles and techniques at the forefront related to a particular medical field of study or specialisation. Students should further be able to demonstrate understanding of the analysis and interpretation of research results, the structure and composition of a research report, as well as publications and presentations. Students will gain knowledge in the use of specialised skills to identify, analyse and address abstract problems related to a research project in a field of study or specialisation, as well as to incorporate body of knowledge and methods during the problem solving process. On completion of this module, students should show their ability to present and communicate scientific research results to a range of audiences in the format of a research article for a given journal, poster design, as well as in the form of a verbal and visual research presentation. (Total tuition time: not available)

