

# BACHELOR OF HEALTH SCIENCE IN MEDICAL ORTHOTICS AND PROSTHETICS

*(Qualification type: Professional Bachelor's Degree)*

BHSci (Medical Orthotics and Prosthetics) - NQF Level 8 (480 credits)

**Qualification code: BPOP20**

SAQA ID: 111160, CHE NUMBER: H/H/16/E102CAN

Campus where offered: Pretoria Campus

## REMARKS

a. *Admission requirement(s) and selection criteria:*

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).

• **APPLICANTS WHO OBTAINED A NATIONAL DIPLOMA AT NQF LEVEL 6:**

Applicants who completed a relevant national diploma (at NQF Level 6) and who graduated and proceeded to work in industry can apply. Applicants should follow an articulation process in which exemption will be granted for 50% of the credits of the completed (and conferred) national diploma. Detailed information on the process to follow is available at the relevant academic department.

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

**Admission requirement(s):**

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

**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 Life Sciences, 4 for Mathematics or Technical Mathematics and 4 for Physical Sciences or Technical 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 2022:** Candidates will be selected based on their relevant APS scores.

**As from 2023:** The selection process will consist of the following phases:

- Phase 1: An administrative screening process of the academic performance score (APS) of each student. This score will contribute a weight of 50% to the overall selection process.



- Phase 2: If the APS is above 27, the applicant will proceed to the interview and dexterity test that will have a weight of 50% (30% for the dexterity test and 20% for the interview).
  - Phase 3: If APS is between 24 and 27 the applicant will write a TUT potential assessment with a 20% score weight. The applicant with minimum potential test score of 50% will be interviewed and will complete the dexterity test. In this case, the dexterity skills evaluation will contribute 15% to the overall score and the interview will contribute 5%.
- c. *Recognition of Prior Learning (RPL), equivalence and status:*  
See Chapter 30 of Students' Rules and Regulations.
- d. *Intake for the qualification:*  
January only.
- e. *Presentation:*  
Day classes.
- f. *Minimum duration:*  
Four years.
- g. *Exclusion and readmission:*  
See Chapter 2 of Students' Rules and Regulations.
- h. *Other requirements:*  
Immunisation against Hepatitis B is compulsory in the first-year of study. A valid first-aid certificate is required. The University will arrange a first-aid programme in the first year. International students will be assessed by the Department to determine enrolment for this qualification.
- i. *Special qualification rules:*  
Special qualification rules apply, and students who register for this qualification will receive the rules with their letter of acceptance. It is the students' own responsibility to familiarise themselves with those rules.
- j. *Registration as a medical orthotist and prosthetist with the HPCSA:*  
On meeting the qualification requirements for the Bachelor of Health Sciences in Medical Orthotics and Prosthetics, the graduate will be with the HPCSA as a practitioner in the category Independent Practice. No students, while registered at TUT are allowed to work in the industry, as prescribed by the HPCSA, unless it forms part of clinical placement.

## CURRICULUM

### FIRST YEAR

| CODE    | MODULE                                    | NQF-L | CREDIT | PREREQUISITE MODULE(S) |
|---------|---|-------|--------|------------------------|
| 11P105X | Communication for Academic Purposes       | (5)   | (10)   |                        |
| BPC105P | Basic Principles of Engineering (CAD)     | (5)   | (14)   |                        |
| CPL105X | Computer Literacy                         | (5)   | (10)   |                        |
| HAN105P | Human Anatomy I                           | (5)   | (18)   |                        |
| HPY105P | Human Physiology I                        | (5)   | (18)   |                        |
| LFS125X | Life Skills (block module)                | (5)   | (2)    |                        |
| MST105X | Mathematics and Statistics                | (5)   | (12)   |                        |
| POP105P | Principles of Orthotics and Prosthetics I | (5)   | (12)   |                        |

### FIRST SEMESTER

|         |   |     |      |  |
|---------|---|-----|------|--|
| BPE115P | Basic Principles of Engineering (Manufacturing) | (5) | (14) |  |
|---------|---|-----|------|--|

|         |                               |     |      |
|---------|-------------------------------|-----|------|
| CHI115P | Chemistry for Health Sciences | (5) | (12) |
| PHN115P | Physics for Health Sciences   | (5) | (12) |
| RPI115P | Research Principles I         | (5) | (6)  |

TOTAL CREDITS FOR THE FIRST YEAR: **140**

## SECOND YEAR

| CODE    | MODULE                                      | NQF-L | CREDIT | PREREQUISITE MODULE(S)  |
|---------|---|-------|--------|---|
| BMI205P | Biomechanics                                | (5)   | (18)   | Human Anatomy I<br>Human Physiology I   |
| HAN206P | Human Anatomy II                            | (6)   | (18)   | Human Anatomy I   |
| HPY206P | Human Physiology II                         | (6)   | (18)   | Human Physiology I  |
| OPC206P | Orthotics and Prosthetics Practice I        | (6)   | (26)   | Basic Principles of Engineering (CAD)<br>Basic Principles of Engineering (Manufacturing)<br>Principles of Orthotics and Prosthetics I |
| OPT206P | Orthotics and Prosthetics Material Sciences | (6)   | (12)   | Principles of Orthotics and Prosthetics I   |
| POU206P | Principles of Prosthetics II                | (6)   | (14)   | Principles of Orthotics and Prosthetics I   |
| POT206P | Principles of Orthotics II                  | (6)   | (14)   | Principles of Orthotics and Prosthetics I   |
| PSS206P | Psycho-Social Science I                     | (6)   | (12)   |   |

## SECOND SEMESTER

|         |                        |     |      |                       |
|---------|------------------------|-----|------|-----------------------|
| RPI216P | Research Principles II | (6) | (12) | Research Principles I |
|---------|------------------------|-----|------|-----------------------|

TOTAL CREDITS FOR THE SECOND YEAR: **144**

## THIRD YEAR

| CODE    | MODULE                                      | NQF-L | CREDIT | PREREQUISITE MODULE(S)   |
|---------|---|-------|--------|--|
| DTA307P | Data Analysis                               | (7)   | (12)   | Research Principles II   |
| HAM307P | Health Care Administration and Management I | (7)   | (12)   |  |
| OPC307P | Orthotics and Prosthetics Practice II       | (7)   | (26)   | Orthotics and Prosthetics Practice I<br>Principles of Orthotics II<br>Principles of Prosthetics II |
| ORY307P | Orthopaedic Pathology                       | (7)   | (12)   | Human Anatomy II<br>Human Physiology II  |
| POT307P | Principles of Orthotics III                 | (7)   | (20)   | Principles of Orthotics II   |
| POU307P | Principles of Prosthetics III               | (7)   | (20)   | Principles of Prosthetics II   |
| PSS306P | Psycho-Social Science II                    | (6)   | (12)   | Psycho-Social Science I  |

## SECOND SEMESTER

|         |  |     |     |
|---------|--|-----|-----|
| MBR315P | Medical Law, Bio-Ethics and Human Rights | (5) | (6) |
| PMY315P | Pharmacology                             | (5) | (6) |

TOTAL CREDITS FOR THE THIRD YEAR: **126**



## FOURTH YEAR

| CODE                                 | MODULE                                       | NQF-L | CREDIT     | PREREQUISITE MODULE(S)   |
|--------------------------------------|--|-------|------------|--|
| HAM408P                              | Health Care Administration and Management II | (8)   | (12)       | Health Care Administration and Management I  |
| OPC408P                              | Orthotics and Prosthetics Practice III       | (8)   | (72)       | Data Analysis<br>Orthotics and Prosthetics Practice II<br>Principles of Orthotics III<br>Principles of Prosthetics III |
| POP408P                              | Principles of Orthotics and Prosthetics IV   | (8)   | (36)       | Data Analysis<br>Principles of Orthotics III<br>Principles of Prosthetics III  |
| TOTAL CREDITS FOR THE FOURTH YEAR:   |  |       | <b>120</b> |  |
| TOTAL CREDITS FOR THE QUALIFICATION: |  |       | <b>530</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:

#### B

#### **BASIC PRINCIPLES OF ENGINEERING (CAD) (BPC105P) CONTINUOUS ASSESSMENT** *(Module custodian: Department of Mechanical and Mechatronics Engineering)*

This module provides a basic introductory knowledge, cognitive and conceptual tools and practical skills in the field of graphical design. Upon completion, the student will have basic introductory knowledge and skills in graphical communication to enable them to convey design information, of a part and assembly such as dimensions, tolerances and, materials according to application-specific conventions to the point where the part can be manufactured. This module is therefore focused on in providing fundamental understanding essential for graphical design. Knowledge and skills acquired in this module enhances the ability of students in the modules Orthotics and Prosthetics Practice. (Total notional time: 140 hours)

#### **BASIC PRINCIPLES OF ENGINEERING (MANUFACTURING) (BPE115P) CONTINUOUS ASSESSMENT** *(Module custodian: Department of Mechanical and Mechatronics Engineering)*

The purpose of this module is to equip the student with a fundamental understanding of mechanical manufacturing materials and processes and how to apply these to a design problem. It gives an overview of materials used and each process in detail and how it interrelates with the other phases of manufacturing processes. Each phase of a manufacturing process will be discussed in detail including what types of knowledge and skills are required to successfully complete each phase. The module will also enable students to analyse processes. The module will consist of practical assignments and an assignment which will enhance the practical application of the knowledge of materials and processes. (Total notional time: 140 hours)

#### **BIOMECHANICS (BMI205P)**

#### **1 X 3-HOUR PAPER**

#### *(Module custodian: Department of Sport, Rehabilitation and Dental Sciences)*

This module prepares the student within the field of Biomechanics related to orthotics and prosthetics. On completion, the student will be able to apply knowledge about biomechanics towards the management of patients in the field of orthotics and prosthetics. (Total notional time: 180 hours)



**C****CHEMISTRY FOR HEALTH SCIENCES (CHI115P)****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 notional time: 120 hours)

**COMMUNICATION FOR ACADEMIC PURPOSES (11P105X)****1 X 3-HOUR PAPER***(Module custodian: Office of the Executive Dean)*

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 notional time: 100 hours)

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

This module provides students with foundational knowledge in computing fundamentals, essential digital skills in key applications based on MS Office Suite and network basics (i.e. MS Outlook and Internet). Online exams are mapped with End-User Computing: SAQA 49077 (61591) Core Element as well as Internet and Computing Core Certification (IC3). (Total notional time: 100 hours)

**D****DATA ANALYSIS (DTA307P)****CONTINUOUS ASSESSMENT***(Module custodian: Department of Sport, Rehabilitation and Dental Sciences)*

This module teaches the student how to choose the correct statistical method before gathering data. The student will know the correct way to collect the data and how to analyse the data. The theory of data analysis is dealt with in preparation for the student to write a research proposal in his/her fourth year. The student will be able to recognise different statistical methods for different type of research. The research process and protocol will be taught to enable the student to become a competent researcher. (Total notional time: 120 hours)

**H****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 utilisation of human resources within a health care environment. This module prepares the student to enter the medical profession. (Total notional time: 120 hours)

**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 faced by managers. (Total notional time: 120 hours)

**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 of the module, 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 notional time: 180 hours)



**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 of the module, 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 notional time: 180 hours)

**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 of the module, 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 notional time: 180 hours)

**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 notional time: 180 hours)

**L****LIFE SKILLS (LFS125X)****CONTINUOUS ASSESSMENT****(Module custodian: Directorate of Student Development and Support)**

Personal, socio-emotional and academic skills development for students in higher education. This module includes 1. Intra- and interpersonal skills (e.g. emotional intelligence, relationships, and conflict management); 2. General study skills (e.g. time management, goal setting, learning styles); 3. Health and wellness (e.g. HIV/AIDS, GBV issues, substance abuse); 4. Student life and adjustment (e.g. identity development, adjusting to a higher education environment); and 5. Financial management. (Total notional time: 20 hours)

**M****MATHEMATICS AND STATISTICS (MST105X)****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 notional time: 120 hours)

**MEDICAL LAW, BIO-ETHICS AND HUMAN RIGHTS (MBR315P)****CONTINUOUS ASSESSMENT****(Module custodian: Department of Biomedical Sciences)**

This module will present the following main learning areas: 1. Medical law, specifically legal principles and business law. 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. (Total notional time: 60 hours)



**O****ORTHOPAEDIC PATHOLOGY (ORY307P)****1 X 3-HOUR PAPER***(Module custodian: Department of Sport, Rehabilitation and Dental Sciences)*

This module prepares the student to be a forefront clinician with respectable ethical values with the ability to communicate appropriately with the inter-disciplinary team and identifying and treating the orthotic and prosthetic patient that is diagnosed with an orthopaedic disorder. The student will be able to apply his/her knowledge of orthopaedic disorders concerning Orthotic and Prosthetic patient by identifying, diagnosing treat and manage the orthopaedic disorder within our scope of practice. (Total notional time: 120 hours)

**ORTHOTICS AND PROSTHETICS MATERIAL SCIENCES (OPT206P)****1 X 3-HOUR PAPER***(Module custodian: Department of Sport, Rehabilitation and Dental Sciences)*

Discussions and reviews on orthotics and prosthetics materials, including metals, leather and wood relevant to the needs and requirements. The student will be able to differentiate and give examples of plastics and present knowledge and understanding of current and future developments in orthotics and prosthetics. (Total notional time: 120 hours)

**ORTHOTICS AND PROSTHETICS PRACTICE I (OPC206P)****CONTINUOUS ASSESSMENT***(Module custodian: Department of Sport, Rehabilitation and Dental Sciences)*

This module prepares the student to apply all skills developed in Principles of Orthotics and Prosthetics, such as to measure, manufacture and fit lower limb Orthotic devices; Foot orthosis (FO), ankle orthosis (AO), ankle foot orthosis (AFO), knee orthosis (KO), knee, ankle foot orthosis (KAFO) hip, knee, ankle foot orthosis (HKAFO), and upper limb Prosthetic devices; Partial hand, wrist disarticulation (WD), trans radial (TR), elbow disarticulation (ED), trans humeral (TH), shoulder disarticulation (SD). (Total notional time: 260 hours)

**ORTHOTICS AND PROSTHETICS PRACTICE II (OPC307P)****CONTINUOUS ASSESSMENT***(Module custodian: Department of Sport, Rehabilitation and Dental Sciences)*

This module prepares the student to apply all skills developed in Orthotics and Prosthetics on NQF 6 and 7, to measure, manufacture and fit upper limb Orthotic devices; hand orthosis (HO), wrist hand orthosis (WHO), elbow orthosis (EO), shoulder orthosis (SO), lower limb Prosthetic devices; Trans-metatarsal, Lisfrancs, Choparts, ankle disarticulation or Symes, trans tibial (TT), knee dis-articulation, long trans-femoral (TF), short trans-femoral (TF), hip disarticulation and hemipelvectomy. (Total notional time: 260 hours)

**ORTHOTICS AND PROSTHETICS PRACTICE III (OPC408P)****CONTINUOUS ASSESSMENT***(Module custodian: Department of Sport, Rehabilitation and Dental Sciences)*

This module prepares the student to be an independent practitioner in the industry of Orthotics and Prosthetics. The various aspects of this module deal with the clinical and practical part of the profession. The student is placed in industry during this time and a supervisor at the centre in liaison with the university will monitor and evaluate the progress of the student. This module will round the student off to be able to treat a patient in this field holistically and provide them with the appropriate assistive devices. The student will be able to apply his/her knowledge and practical skills to rehabilitate Orthotics and Prosthetic patients that were taught in the previous years. Practical skills will include the assessment, evaluation, designing, measuring, casting, manufacturing, fitting, problem solving and issuing of the orthotic or prosthetic device. (Total notional time: 720 hours)

**P****PHARMACOLOGY (PMY315P)****1 X 3-HOUR PAPER***(Module custodian: Department of Pharmaceutical Sciences)*

This module introduces the student to pharmacological principles and concepts related to drug administration, drug scheduling, legal aspects and drug allergies. Upon completion, the student will be able to demonstrate the basic competencies such as drug calculation, application of drug abbreviations and the listing of common drug side and adverse effects and the supplication of the ethical and legal aspects, concerning nursing and midwifery. (Total notional time: 60 hours)

**PHYSICS FOR HEALTH SCIENCES (PHN115P)****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 notional time: 120 hours)



**PRINCIPLES OF ORTHOTICS AND PROSTHETICS I (POP105P) 1 X 3-HOUR PAPER**

**(Module custodian: Department of Sport, Rehabilitation and Dental Sciences)**

Basic principle of orthotics and prosthetics; Health Profession Council of South Africa and Ethics; and Current and Innovative technologies in orthotics and prosthetics. (Total notional time: 120 hours)

**PRINCIPLES OF ORTHOTICS AND PROSTHETICS IV (POP408P) CONTINUOUS ASSESSMENT**

**(Module custodian: Department of Sport, Rehabilitation and Dental Sciences)**

This module prepares the student to conduct an orthotics or a prosthetic project during the postgraduate studies. The various aspects of the research proposal deal with ethics and a structured method to complete a research proposal. The student will be able to choose a topic that is related to orthotics or prosthetics as a result of the knowledge of the previous years. (Total notional time: 360 hours)

**PRINCIPLES OF ORTHOTICS II (POT206P) 1 X 3-HOUR PAPER**

**(Module custodian: Department of Sport, Rehabilitation and Dental Sciences)**

This module prepares the student to be a forefront clinician with respectable ethical values with the ability to communicate appropriately with the inter-disciplinary team and treating the orthotic patient. The student will be able to apply his/her knowledge of Orthotic protocols towards the patients management and lower extremity orthotics to conduct a successful treatment/rehabilitation plan as well as manufacturing of these rehabilitative devices. (Total notional time: 140 hours)

**PRINCIPLES OF ORTHOTICS III (POT307P) 1 X 3-HOUR PAPER**

**(Module custodian: Department of Sport, Rehabilitation and Dental Sciences)**

This module provides the student with the knowledge and skills to deal with all patients with head, trunk and upper limb deficiencies that require orthotic intervention. The student will be able to apply his/her knowledge in order to provide the care and understanding to diagnose and recognise the scientific procedures needed to be followed in order to effectively manage the orthotic client in all aspects of rehabilitation and the manufacturing of the correct orthotic device. (Total notional time: 200 hours)

**PRINCIPLES OF PROSTHETICS II (POU206P) 1 X 3-HOUR PAPER**

**(Module custodian: Department of Sport, Rehabilitation and Dental Sciences)**

This module in prepares the student to be a forefront clinician with respectable ethical values with the ability to communicate appropriately with the inter-disciplinary team and treating the upper limb and breast prosthetic patient. The student will be able to apply his/her knowledge of Prosthetic Clients, Prosthetic patient management and Upper extremity prosthetics including breast prosthetics, to assess, measure and design a successful treatment/rehabilitation plan including the manufacturing and issuing of the assistive device. (Total notional time: 140 hours)

**PRINCIPLES OF PROSTHETICS III (POU307P) 1 X 3-HOUR PAPER**

**(Module custodian: Department of Sport, Rehabilitation and Dental Sciences)**

This module prepares the student to deal with all patients with lower limb amputations. The student will be able to apply his/her knowledge of Foot, Symes, Trans-Tibial, Through Knee, Trans-Femoral and Hemi-pelvectomy patients providing the care and understanding to diagnose and recognise the scientific procedures applicable. The student will be able to apply his/her knowledge of Prosthetic Clients, Prosthetic patient management and Lower extremity prosthetics to design a successful treatment/rehabilitation plan including the manufacturing and issuing of the assistive device. (Total notional time: 200 hours)

**PSYCHO-SOCIAL SCIENCE I (PSS206P) 1 X 3-HOUR PAPER**

**(Module custodian: Department of Adelaide Tambo School of Nursing Science)**

To prepare the student to apply knowledge, skills and attitudes in psychology to effectively, and professionally interact with individuals, families and communities, throughout their life span, in a variety of work, therapeutic and health care settings. A student will be able to apply his/her knowledge of the bio-psychological basis for human behaviour, human development, personality, language and through, learning and memory, intelligence, motivation and emotion, social behaviour, stress, coping and health, professional and therapeutic relationships to personal and professional relationship. Upon completion of the module, the student will be able to understand and apply the psychological perspectives to the in the field of kinesiology and coaching science. (Total tuition time: not available). (Total notional time: 120 hours)





**PSYCHO-SOCIAL SCIENCE II (PSS306P)****1 X 3-HOUR PAPER*****(Module custodian: Department of Adelaide Tambo School of Nursing Science)***

This module prepares the student to apply knowledge of psycho-social sciences, throughout the life span, in a variety of work environments, therapeutic and health care settings and communities in response to population needs. The student will be able to apply his/her knowledge of the sociological perspectives, culture, religion, socialisation and social identity, family, race, class, gender, South African Population demographics, Social problems and their societal implications. On completion, the student will be able to understand and apply the sociological perspectives to the health promotion, prevention, treatment and rehabilitation in the world of work and health service delivery. (Total notional time: 120 hours)

**R****RESEARCH PRINCIPLES I (RPI115P)****CONTINUOUS ASSESSMENT*****(Module custodian: Department of Biomedical Sciences)***

This module prepares the student to utilise research in investigating Biokinetics problems. The student will be able to apply his/her knowledge of research to the clinical areas of biokinetics with reference to the introduction to research, the research process, ethics and finding information. Upon completion, the student will be able to demonstrate knowledge, comprehension and application of research understanding when providing evidence-based care; to demonstrate guided response in gaining the skill of academic reading, use of academic writing skills in writing assignment including citing and proper referencing using appropriate referencing style. (Total notional time: 60 hours)

**RESEARCH PRINCIPLES II (RPI216P)****CONTINUOUS ASSESSMENT*****(Module custodian: Department of Biomedical Sciences)***

This module teaches the student how to use the research principles learned in the first level in a more realistic and programme specific effect. The theory of research is dealt with in preparation for the student to write a research proposal in his fourth year. The student will be able to recognise different profession specific topics and argue the validity of the topics. The research process and protocol will be taught to enable the student to become a researcher. (Total notional time: 120 hours)

