# BASIC MEDICAL SCIENCES DEPARTMENT







**20 HAND 24 BOOK** 

ENVISION2030

transparency · honesty · integrity · respect · accountability

### **HANDBOOK FOR 2024**

# FACULTY of HEALTH SCIENCES

## DEPARTMENT of BASIC MEDICAL SCIENCES

The Department of Basic Medical Sciences is a specialist department servicing programmes primarily in the Faculty of Health Sciences.

This department does not offer any programmes.

Modules are offered in the following disciplines:

Anatomy Biology Epidemiology Pathology Pharmacology Physiology

This handbook offers information on these modules.

#### WHAT IS A UNIVERSITY OF TECHNOLOGY?

A university of technology is characterised by being research informed rather than research driven where the focus is on strategic and applied research that can be translated into professional practice. Learning programmes, in which the emphasis on technological capability is as important as cognitive skills, are developed around graduate profiles as defined by industry and the professions.

#### NOTE TO ALL REGISTERED STUDENTS

Your registration is in accordance with all current rules of the Institution. If, for whatever reason, you do not register consecutively for every year/semester of your programme, your existing registration contract with the Institution will cease. Your re-registration anytime thereafter will be at the discretion of the institution and, if permitted, will be in accordance with the rules applicable at that time.

#### **IMPORTANT NOTICES**

The rules in this departmental handbook must be read in conjunction with the General Rules (G Rules) contained in the Durban University of Technology (DUT) General Handbook for Students as well as the relevant module Study Guides.

Your attention is specifically drawn to Rule G1 (8), and to the process of dealing with student issues.

#### **FACULTY VISION, MISSION, GOALS & VALUES**

#### VISION

"Leading transformative and innovative Health Sciences education"

#### MISSION

"Developing holistic professionals responsive to healthcare needs, "through excellence in:

- Teaching and learning
- Research, Innovation and Engagement
- Fostering Entrepreneurship

#### **VALUES**

#### **PROFESSIONALISM**

To work within the regulatory framework of professional conduct.

To maintain and develop professional expertise and good work ethic.

#### **INTEGRITY**

To conduct ourselves with strong moral principles.

To be honest and authentic. To do what is ethical and just.

#### URUNTU

To treat people with respect, fairness courtesy, politeness, and kindness.

#### TRANSPARENCY

To conduct ourselves with openness and honesty through shared governance.

#### **ACCOUNTABILITY**

To accept responsibility for one's actions.

#### **DEPARTMENTAL VISION, MISSION, GOALS & VALUES**

#### Vision

To be a leading provider of Basic Medical Science education and research

#### Mission

Making sense of the human body:

Building the foundation for future health professionals

#### **Values**

I. Behaviour

To uphold and promote professionalism, integrity and ethics.

To be responsible and accountable.

2. Mutual Respect

To embrace the principles of Ubuntu that represent our humanity and community, viz. kindness, empathy, sensitivity and caring.

3 Student Centeredness

To provide high quality teaching, learning and assessment, incorporating innovative strategies to address the distinct learning needs of our students.

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- 6.6 BHSc: Environmental Health
- 6.7 BHSc: Medical Orthotics & Prosthetics
- 6.8 BHSc: Nursing Science
- 6.9 BHSc: Radiography
- 6.10 D: Somatology
- 6.11 HC: Dental Assisting

#### I. DEPARTMENTAL AND FACULTY CONTACT DETAILS

All departmental enquiries to:

Secretary: Miss N Manyathi Tel No: (031)373 2406

Email: nondumisom@dut.ac.za

Location of Department: Department of Basic Medical Sciences, Gate

6, Steve Biko Road, Mansfield Site Area,

Ritson Campus

Head of Department Prof F Haffejee (Interim)

Tel No: (031) 373 2395 Email: firozah@dut.ac.za

Location of Department: Department of Basic Medical Sciences, Gate

6. Steve Biko Road, Mansfield Site Area.

Ritson Campus

All Faculty enquiries to:

Faculty Officer: Mrs FT Mayisela
Tel No: (031) 373 2701
Fax No: (031) 373 2407
Email: thembim@dut.ac.za

Location: Health Sciences Faculty Office, Gate 8, Steve

Biko Road, Mansfield Site Area, Ritson

Campus

Executive Dean:

Executive Dean's Secretary
Tel No:

Email:

Prof GG Mchunu
Mrs Bilkish Khan
(031) 373 2704
bilkishk@dut.ac.za

Location: Executive Dean's Office, Gate 8, Steve Biko

Road, Mansfield Site Area, Ritson Campus

#### 2. STAFFING Name and Qualification

**Full Professors** Prof F Haffejee, PhD (Optics & Imaging - Medicine)

(UKZN); MSc (UKZN); BSc (Hons) (UDW); BSc

(UN)

**Associate Professors** Prof N Govender, PhD (Optics & Imaging - Medicine)

(UKZN); MSc (UDW); BSc (Hons) (UDW); BSc

(UDW)

Senior Lecturers Dr F Ally, PhD (Anatomy) (UKZN); MEd (Higher Ed)

(UKZN); HDE (Postschool) (UN); BMedSc (Hons)

(UDW)

Dr Y Thandar, PhD (Pharm.) (UKZN), MMedSc

(ClinPharm) (UDW); BPharm (UDW)

**Lecturers** Dr AK Bhundoo, MTech (Chiropractic) (DUT)

Mrs JF Ducray, MMedSc (UKZN); BMedSc (Hons)

(WITS); BSc (WITS)

Dr CM Kell, MTech (Hom) (DUT); PGCE (UNISA)

Mrs BO Mbhele, MMedSc (UKZN); BMedSc (Hons)

(UKZN); BSc (BiolSc) (UN)

Senior Technicians Mr AM Mkhize, MTech (Biotechnology) (ML Sultan);

BTech (ML Sultan); BSc (Univ. Zululand)

**Technicians** Ms Y Padayachee, BSc (RU)

Dr GM Zondi, MTech (Homoeopathy) (DUT)

Technical Assistant Mr S Ninela

Laboratory Assistant Vacant

Secretary Miss N Manyathi, MMHRM1 (Masters HRM) (DUT)

B.Tech (HR) (DUT); ND (HR) (DUT)

#### 3. DEPARTMENTAL INFORMATION & RULES

#### 3.1 Programmes serviced by the Department

Programmes serviced	Qualification	SAQA NLRD
	code	number
BHSc: Clinical Technology	BHCLTI	96409
BHSc: Chiropractic	BACHRI	96409
BHSc: Emergency Medical Care and Rescue	BHEMCI	72207
BHSc: Environmental Health	BHEVHI	74471
BHSc: Homoeopathy	BHHOMI	74471
BHSc: Medical Laboratory Science	BHMLSI	94553
BHSc: Medical Orthotics and Prosthetics	ВНМОР3	91786
BHSc: Nursing Science	BCHNSG/E	76925
BHSc: Radiography: Diagnostic Radiography	BHDRDI	94832
BHSc: Radiography: Diagnostic Sonography	BHDSNI	94679
BHSc: Radiography: Nuclear Medicine	BHNMDI	94803
BHSc: Radiography: Radiotherapy	BHRDTI	94800
D: Somatology	DISOMI	99725
HC: Dental Assisting	HCDNAI	66412

# 3.2 MODULES OFFERED BY THE DEPARTMENT Refer to 6. Modules and content per programme

#### 3.3 DEPARTMENTAL INFORMATION

#### 3.3.1. Academic Integrity

Please refer to the General Rules pertaining to academic integrity G13 (1) (o). These will be enforced wherever necessary to safeguard the quality of our qualifications, and the integrity of the Faculty of Health Sciences at the DUT.

#### 3.3.2. Code of Conduct for Students

In addition to the General Rules pertaining to Student Conduct SR3 (3), a professional code of conduct pertaining to behaviour, appearance, personal hygiene and dress shall apply to all students registered within the Faculty of Health Sciences, at all times.

Students registered in the department will be required to adhere to the dress code as determined by the Head of Department.

Students must adhere to all Health and Safety regulations both at DUT's Wentworth Hospital teaching facility, all DUT campuses and in clinical placement sites. Failure to do so will be treated as a breach of discipline.

#### 3.3.3. Uniforms

Students must adhere to instructions regarding specific uniforms required during practical sessions. Refer to your Study Guide for more details.

#### 3.3.4 Health and Safety

Students must adhere to all Health and Safety regulations both while at DUT and in Work Integrated Learning (WIL) placements. Failure to do so will be treated as a breach of discipline. Refer to your Study Guide for more details.

#### 3.3.5 Attendance

Students are encouraged to achieve 100% attendance for all planned academic activities as these are designed to provide optimal support for the required competency. Where absence is unavoidable, the student must timeously advise the department of the reason. Only exceptional reasons will be condoned. Poor attendance records may lead to penalties. Refer to your Study Guide for more details.

A register of attendance will be circulated during each lecture and practical. It is the responsibility of all students to sign the register personally during these sessions. In the case of online sessions delivered via Microsoft Teams, a register will be downloaded at the start and the end of the session.

Consult your module Scheme of Work for the dates of the assessments. Absence from these assessments will not be condoned without a valid reason (and proof thereof). These assessments collectively constitute the module course (final) mark.

Assignments and short assessments may also be conducted as determined by the lecturers and marks from these assessments may contribute towards the course (final) mark.

#### 3.3.6 General Information for Anatomy Dissection Hall

- 3.3.6.1. Under no circumstances may unauthorised persons (persons not registered for Anatomy) enter the dissecting hall. Disciplinary action will be taken against anyone flouting this rule.
- 3.3.6.2. Cadavers and all human materials must be treated with utmost respect.
- 3.3.6.3. All students must be appropriately dressed. White lab coats and closed shoes (e.g. takkies) are compulsory. Students who do not comply will NOT be allowed to enter the dissecting hall.
- 3.3.6.4. Smoking, drinking and eating are strictly prohibited.
- 3.3.6.5. Each cadaver has 2 stainless steel tags attached (ear and small toe). Do not remove these tags.
- ${\bf 3.3.6.6.} \quad \hbox{ Do not cut or tear the plastic used to cover cadavers.}$
- 3.3.6.7. Buckets at the base of the table are for collecting body fluids only and not for waste paper, scalpel blades, etc. Specific bins are provided for the disposal of wastepaper, scalpel blades, etc.
- 3.3.6.8. Do not leave scalpels, forceps, etc. on the tables or in the cadaver.
- 3.3.6.9. Keep tables clean at all times.
- 3.3.6.10. Do not drop pieces of human material on the floor. Place all off-cuts into bowls provided.
- 3.3.6.11. A bowl is provided at each dissection table for human material only. Please refrain from placing paper towels, scalpel, blades, etc. into these receptacles.
- 3.3.6.12. Do not dispose of paper towels, scalpel blades, etc. into bins specifically

- provided for human material.
- 3.3.6.13. As far as possible do not discard skin. Use it to cover the cadaver. These are best to prevent dehydration.
- 3.3.6.14. Cover the cadavers appropriately after each dissection session.
- 3.3.6.15. Use the fluids provided in sprays to keep cadavers moist.
- 3.3.6.16. Disposal procedures to be adhered to in the Anatomy laboratory are as follows:
  - All cadaveric material to be placed in bins provided for each table
  - Used and broken scalpel blades must be placed in the Sharps containers provided
  - Used gloves to be discarded in the glove disposal boxes provided in each lab
  - Wastepaper and paper towels must be disposed of in the black bins located at/near the sinks
- 3.3.6.17. Report injuries to the staff present immediately

#### 3.3.7 General Laboratory Information

- 3.3.7.1. No student is allowed in the laboratory unless a staff member is present.
- 3.3.7.2. Any student without a laboratory coat will NOT be admitted into the laboratory.
- 3.3.7.3. Closed shoes must be worn at all times especially when dissecting equipment is in use.
- 3.3.7.4. No eating, drinking or smoking is allowed in the laboratory.
- 3.3.7.5. All cuts and sores must be covered.
- 3.3.7.6. Appropriate behaviour is expected at all times.
- 3.3.7.7. Each student will be allocated a bench space/work station for the year. It is the responsibility of the students to check their stations BEFORE the commencement of each practical session and to report any discrepancies immediately to a staff member. This pertains particularly to microscopes and slides.
- 3.3.7.8. Any breakages will be charged to the student responsible. The combined class will share the cost if the person responsible for the damage is not identified.
- 3.3.7.9. Students are not permitted into the preparation room or wash up room.
- 3.3.7.10. Students are responsible for keeping their workstations clean and tidy.
- 3.3.7.11. Microscopes must be handled and stored correctly after use. You will be advised on these procedures. Any mishandling of equipment could result in a student being denied access to the laboratory for the remainder of the year/course.
- 3.3.7.12. Practical sessions will begin promptly at the scheduled times. Students arriving late will not be admitted into the laboratory.
- 3.3.7.13. Report injuries to a staff member immediately.

#### 4. DEPARTMENTAL RULES

These rules apply to all students registered for modules offered by this Department.

#### 4.1 Special Assessments and Condonements

No missed assessments will be condoned.

- If a student misses an assessment for reasons of illness, a special assessment may be granted if the student provides a valid medical certificate specifying the nature and duration of the illness, and a declaration that for health reasons it was impossible for the student to sit for the assessment. This certificate must be submitted to the module lecturer no later than two (2) working days after the "fit for duty" date on the medical certificate.
- If a student misses an assessment for reasons other than illness, a special
  assessment may be granted if the student provides a valid notification that for
  unavoidable reasons it was impossible for the student to sit for the assessment.
  This must be submitted to the module lecturer no later than two (2) working
  days after the date of the missed assessment.
- Any student who misses an assessment and who does not qualify for a special assessment, and any student who qualifies for a special assessment but fails to write it, shall be awarded a zero (0) mark for the missed assessment.

#### 4.2 Student Appeals

Rule GI (8) refers to:

Any student wishing to appeal against:

- (a) The implementation of an Institutional Rule, must first lodge the appeal with the relevant Head of Department;
- (b) The decision of a Head of Department must do so via the relevant Executive Dean to the Faculty Board or a delegated Committee of the Faculty Board.

The decision of the Faculty Board or a delegated Committee of the Faculty Board is final, and no further appeals will be considered thereafter (Amended w.e.f. 2009/01)

#### BOOKLIST - PRESCRIBED TEXTBOOKS FOR 2024

(The student must obtain the prescribed textbooks, and should consult the recommended textbooks)

Authors Name	Course	Title	Date of Publication	Library Copies
Gosling, Harris, Whitemore, Wiiliam	Homoeo/Chiro (Anatomy I, II)	Human Anatomy Atlas & Text	Latest Edition	ı
Moore. K L	Homoeo/Chiro (Anatomy I, II)	Clinically Oriented Anatomy Williams and Wilkens, Baltimore	Latest Edition	2
Wheater, et al.	Homoeo/Chiro/ (Anatomy I) (Physio I, II)	Functional Histology: A text and colour Atlas Churchill	Latest edition	I
Penny Webb, Chris Bain & Sandi Pirozzo	Homoeo/Chiro (Epi II)	Essential Epidemiology	Latest edition	4
C.J. Finlayson & B.A.T. Nevel	Homoeo/Chiro III (Pathology)	Pathology at a Glance	Latest edition	5
Dreyer A, Kharwa R, Moch, S and Thandar Y	Homoeo/Chiro/MOP Clin Tech./EMC/ Postgrad & Nursing Science (Pharmacology)	Pharmacology for Nurses and Pharmacology for Health Sciences	4 <sup>th</sup> edition	3

Tortora, G.J. & Derrickson, B.	Medical Laboratory Science/Nursing Science/Soma I/ /MOP/Clin Tech I/ Homoeo/Chiro/ EH EMC (Physiology I)	Introduction to the Human Body	Latest edition	4
Tortora, G.J., Derrickson, B	Radiography (Physiology I)	Principles of Anatomy and Physiology	Latest edition	2
Keith L. Moore, Anne M.R. Agur	MOP/Clin Tech/EMC I/ Radiography (Anatomy I)	Essential Clinical Anatomy	Latest Edition	2
Derrickson, B	EMC II/ Homoeo/Chiro II (Physio 2)	Human Physiology	Latest Edition	I
McKinney & Woodman	Homoeo/Chiro (Pathology)	Pathology -Crash course	5th edition	I
Tylor M. R., Simon E.J., Dickey J.L., Hogan K. & J.B. Reece	Homeo/Chiro (Biological principles/sciences)	Campbell Biology Concepts & Connections	9 <sup>th</sup> or latest	ı

#### 6. MODULES AND ASSESSMENTS PER PROGRAMME

NB: Students are required to read this section in conjunction with the relevant study guide. (CA: Continuous Assessment)

#### 6.1 BACHELOR OF HEALTH SCIENCES: CLINICAL TECHNOLOGY

MODULE (CODE)	LEARNING AREAS/CONTENT	ASSESSMENT PLAN
Anatomy	Introduction to Anatomy	CA
AAMY101	Skeleton	
	Thorax	
	Abdomen and Pelvis	
	Limbs and Back	
	Neuroanatomy	
	Head and Neck	
Physiology	Introduction	CA
PYSL101	Nervous System	
	Cardiovascular System	
	Respiratory System	
	Renal System	
	Cardiovascular system	
	Lymphatic & Immunity	
	Reproductive System	
	Gastro-intestinal system	
Pharmacology	General Aspects of Drug Therapy;	CA
PRCL101	Pharmacokinetics and Pharmacodynamics	
	Administration of drugs to patients	
	Adverse effects of drugs	
	Drugs affecting the autonomic, somatic and sensory nervous system	
	Central nervous system	
	Haemopoietic system	
	Respiratory system	
	Digestive tract	
	Analgesics and anti-inflammatory drugs	
	Antihistamines	
	Hormones and hormone antagonists	
	Antimicrobial and other anti-infective drugs	
	Cardiovascular drugs	

#### 6.2 BACHELOR OF HEALTH SCIENCES: CHIROPRACTIC

MODULE (CODE)	LEARNING AREAS/CONTENT	ASSESSMENT PLAN
Gross Anatomy IA	Introduction to Anatomy Thorax	CA
ANGRIII Gross Anatomy IB	Abdomen Pelvis	CA
ANGR121 Histology	Introduction to Histology	CA
HISTIII	Primary Tissues: including epithelia, connective tissues (Binding tissues, blood, cartilage and bone), muscle and nervous tissue Histology of the Body Systems including cardiovascular, integumentary, lymphatic organs, respiratory, digestive, urinary, reproductive	
Physiology IA PHGYIII	The Human Body The Chemical level of organisation: Basic Chemistry The Cellular level of organisation The Integumentary System: Skin and membranes The Muscular System The Nervous System Special Senses	CA
Physiology IB PHGY121	The Endocrine System The Cardiovascular System The Lymphatic System and Body Defences The Respiratory System The Digestive System The Urinary System The Reproductive System The Reproductive System	CA
Biological Sciences BIOS101	View of life & Biological theories Biological molecules Prokaryotic & Eukaryotic cells, Cellular reproduction and inheritance, Embryonic development, Evolution Taxonomy Origin of life, viruses and bacteria, Introduction to microbiology The Protistan Kingdom, The Plant Kingdom, The Fungal Kingdom, The Animal Kingdom.	CA
Gross Anatomy II ANGR20 I	Back Upper Limb Lower Limb	CA
Clinical Anatomy ANGR22 I	Neuroanatomy Head & Neck Applied Anatomy	CA
Physiology IIA PHGG201	The Neuro-endocrine System The Cardiorespiratory System	CA
Physiology IIB PHGY201	The Genitourinary system	CA
Immunology, Parasitology and Communicable Diseases EPIP201	Parasitology Immunology Communicable Diseases	CA
General Pathology	Introduction to Pathology and Disease Cell injury, death and necrosis	CA

GEPA201	Amyloid Calcification Pigmentation Jaundice Oedema, fluid and electrolyte imbalance; Hyperaemia, congestion, haemorrhage, thrombosis, embolism, infarction Inflammation, healing and repair; Infection and disease Disorders of Growth and cancers; Effects of Radiation Disorders of Carbohydrate metabolism; Nutritional disorders Autoimmune disorders	
Systemic Pathology IA SYSP311	Skin Cardiovascular System Haematopoietic and Lymphoid Systems; Respiratory System Renal System	CA
Systemic Pathology IB SYSP321	Gastrointestinal Tract & Liver, Pancreas & Biliary Tract Musculoskeletal System Nervous System; Endocrine System Reproductive System	CA
Clinical Pharmacology PHRM311	General Aspects of Drug Therapy; Pharmacokinetics and Pharmacodynamics Administration of drugs to patients Adverse effects of drugs Drugs affecting the autonomic, somatic and sensory nervous system Central nervous system Haemopoietic system Respiratory system Digestive tract Analgesics and anti-inflammatory drugs Antihistamines Hormones and hormone antagonists Antimicrobial and other anti-infective drugs Cardiovascular drugs	CA

#### 6.3 BACHELOR OF HEALTH SCIENCES: HOMOEOPATHY

MODULE (CODE)	LEARNING AREAS/CONTENT	ASSESSMENT PLAN
Gross Anatomy Module A	Introduction to Anatomy Thorax	CA
GRANI0I	THOTAX	
Gross Anatomy Module B	Abdomen	CA
GRAN102	Pelvis	
Histology	Introduction to Histology	CA
HSTL101	Primary Tissues: including epithelia, connective tissues (Binding tissues, blood, cartilage and bone), muscle and nervous tissue	
	Histology of the Body Systems including cardiovascular, integumentary,	
	lymphatic organs, respiratory, digestive, urinary, reproductive	
Anatomy II	Back	CA
Gross	Upper Limb	
GRAN201	Lower Limb	
Anatomy II	Neuroanatomy	CA
Clinical	Head & Neck	
CLAN101	Applied Anatomy	
Epidemiology II	Immunology	CA
EPIP101	Parasitology	
	Communicable Diseases	
Epidemiology II EPPH I 0 I	Public Health	CA
General Pathology II	Introduction to Pathology and Disease	CA

	T	
GPATI01	Cell injury, death and necrosis	
	Amyloid	
	Calcification	
	Pigmentation	
	Jaundice	
	Oedema, fluid and electrolyte imbalance;	
	Hyperaemia, congestion, haemorrhage, thrombosis, embolism, infarction	
	Inflammation, healing and repair; Infection and disease	
	Disorders of Growth and cancers; Effects of Radiation	
	Disorders of Carbohydrate metabolism; Nutritional disorders	
	Autoimmune disorders	
Physiology IA	The Human Body	CA
PHSY102	The Chemical level of organisation: Basic Chemistry	
	The Cellular level of organisation	
	The Integumentary System: Skin and membranes	
	The Muscular System	
	The Nervous System	
	Special Senses	
Dhusialani ID	The Ende spine Content	CA
Physiology IB	The Endocrine System	CA
PHSY103	The Cardiovascular System	
	The Lymphatic System and Body Defences	
	The Respiratory System	
	The Digestive System	
	The Urinary System	
	The Reproductive System	
Physiology IIA	The Neuro-endocrine System	CA
	The Cardiorespiratory System	
Physiology IIB	Genitourinary System	CA
PHGU201		
Systematic	Skin	CA
Pathology II	Cardiovascular System	
Module I	Haematopoietic and Lymphoid Systems;	
SYPT101	Respiratory System	
	Renal System	
	,	
Systemic Pathology	Gastrointestinal Tract & Liver, Pancreas & Biliary Tract	CA
Module II	Musculoskeletal System	
SYPT102	Nervous System;	
	Endocrine System	
	Reproductive System	
Pharmacology	General Aspects of Drug Therapy;	CA
PHYC102	Pharmacokinetics and Pharmacodynamics	
11110102		
	Administration of drugs to patients	
	Adverse effects of drugs	
	Drugs affecting the autonomic, somatic and sensory nervous system	
	Central nervous system	
	Haemopoietic system	
	Respiratory system	
	Digestive tract	
	Analgesics and anti-inflammatory drugs	
	Antihistamines	
	Hormones and hormone antagonists	
	Antimicrobial and other anti-infective drugs	
	Cardiovascular drugs	
Biological Principles I	View of life & Biological theories	CA
BLGP101	Biological molecules	
	Prokaryotic & Eukaryotic cells,	
	Cellular reproduction and inheritance,	
	Embryonic development,	
	Evolution	
1		

Taxonomy	
Origin of life, viruses and bacteria,	
Introduction to microbiology	
The Protistan Kingdom,	
The Plant Kingdom,	
The Fungal Kingdom,	
The Animal Kingdom.	

# 6.4 BACHELOR OF HEALTH SCIENCES: MEDICAL LABORATORY SCIENCES

MODULE (CODE)	LEARNING AREAS/CONTENT	ASSESSMENT PLAN
Anatomy &	Organization and functions of all systems of the human body;	CA
Physiology IA	Homeostatic mechanisms	
ANPA 102	Structure and function of cellular organelles, including the causes and cellular basis	
	of cancer	
	Body tissues, including epithelial, connective, muscle and nervous tissues	
	The integumentary system	
	The Neuro-endocrine systems	
Anatomy &	The Cardiovascular and respiratory systems;	CA
Physiology IB	The digestive & urinary systems;	
ANPB 102	Reproductive system	
	,	

#### 6.5 BACHELOR OF HEALTH SCIENCES: EMERGENCY MEDICAL CARE

MODULE (CODE)	LEARNING AREAS/CONTENT	ASSESSMENT PLAN
Physiology I	Introduction	CA
PHSL101	Cells	
	Tissues	
	Nervous System	
	Endocrine System	
	Reproductive System	
	Cardiovascular System	
	Respiratory System	
	Muscular System	
	Digestive System	
	Urinary System	
General	Introduction to Pathology and Disease	CA
Pathology	Cell injury, death and necrosis	
GPTA101	Amyloid	
	Calcification	
	Pigmentation	
	laundice	
	Oedema, fluid and electrolyte imbalance;	
	Hyperaemia, congestion, haemorrhage, thrombosis, embolism, infarction	
	Inflammation, healing and repair; Infection and disease	
	Disorders of Growth and cancers; Effects of Radiation	
	Disorders of Carbohydrate metabolism; Nutritional disorders	
	Autoimmune disorders	
Pharmacology	General Aspects of Drug Therapy	CA
PHMA 101	Pharmacokinetics and Pharmacodynamics	
	Administration of drugs to patients	
	Adverse effects of drugs	
	Drugs affecting the autonomic, somatic and sensory nervous system	
	Central nervous system	
	Haemopoietic system	
	Respiratory system	
	Digestive tract	

	Analgesics and anti-inflammatory drugs Antihistamines Hormones and hormone antagonists Antimicrobial and other anti-infective drugs Cardiovascular drugs Poisoning and drug treatment in emergencies	
Anatomy I	Introduction to Anatomy	CA
AAMY102	Skeleton Thorax	
	Abdomen and Pelvis	
	Limbs and Back	
	Neuroanatomy	
	Head and Neck	
Physiology II A	The Neuro-endocrine System	CA
PSYA 201	The Cardiorespiratory System	
Physiology II B PSYB 202	The Genitourinary System	CA

#### 6.6 BACHELOR OF HEALTH SCIENCES: ENVIROMENTAL HEALTH

MODULE (CODE)	LEARNING AREAS/CONTENT	ASSESSMENT PLAN
Anatomy &	Organisation of the body	CA
Physiology	Homeostatic mechanisms	
ANPA IOI	Structure and function of cellular organelles, including the causes and cellular basis of cancer	
	Body tissues, including epithelial, connective, muscle and nervous tissues	
	The integumentary system	
	The Neuro-Endocrine system	
Anatomy &	The Cardiovascular and respiratory system	CA
Physiology	The digestive & urinary systems	
ANPB102	Reproductive system	

# 6.7 BACHELOR OF HEALTH SCIENCES: MEDICAL ORTHOTICS & PROSTHETICS

MODULE (CODE)	LEARNING AREAS/CONTENT	ASSESSMENT PLAN
Anatomy I	Introduction to Anatomy	CA
ANMY101	Musculoskeletal Anatomy	
	Back, Upper limbs and Lower limbs.	
Anatomy II	Neuroanatomy	CA
ANMY201	Head & Neck	
Clinical Studies I	Inflammation, repair and healing.	CA
CLCS101	Inflammatory diseases.	
	Degenerative diseases.	
	Post traumatic conditions.	
	Metabolic disorders.	
	Circulatory disorders	
	Amputations	
	Post-traumatic osteoporosis	
	Aseptic bone necrosis.	
	Paralysis resulting from nerve lesions.	
	Diseases of the pelvis and hip.	
	Diseases of the lower limb.	
	Diseases of the upper limb	
	Limb deformities	
	Skin disorders and wound repair	
Clinical Studies II	Nervous system disorders and diseases (child and adult) (CNS and PNS)	CA

CLCS201	including Polio, Cerebral palsy, paraplegia and quadriplegia, ataxia. Parkinson's disease. Spinal and thoracic deformities, scoliosis, kyphosis. Diseases of the spine. Circulatory disorders. Metabolic disorders. Tumors. Degenerative diseases. Burns. Fractures.	
Physiology for MOP PYSL102	Organisation of the body Homeostatic mechanisms Structure and function of cellular organelles, including the causes and cellular basis of cancer Body tissues, including epithelial, connective, muscle and nervous tissues The Integumentary system, The Neuro-Endocrine system The cardiovascular system, immunity and the lymphatic system The respiratory system.	CA
Basic Pharmacology BPHY101	General Aspects of Drug Therapy Pharmacokinetics and Pharmacodynamics Administration of drugs to patients Adverse effects of drugs Drugs affecting the autonomic, somatic and sensory nervous system Central nervous system Haemopoietic system Respiratory system Digestive tract Analgesics and anti-inflammatory drugs Antihistamines Hormones and hormone antagonists Antimicrobial and other anti-infective drugs Cardiovascular drugs	CA

#### 6.8 BACHELOR OF HEALTH SCIENCES: NURSING SCIENCE

MODULE (CODE)	LEARNING AREAS/CONTENT	ASSESSMENT PLAN
Introduction to Pharmacology INPH102	General aspects of drug therapy including scheduling and legislation Pharmacokinetics and Pharmacodynamics Adverse drug reactions including drug interactions Administration of drugs to patients Autonomic Nervous System (Pharm)	CA
Pharmacology for Postgraduate Nursing PFPN 801	General Aspects of Drug Therapy Pharmacokinetics and Pharmacodynamics Administration of drugs to patients Adverse effects of drugs Drugs affecting the autonomic, somatic and sensory nervous system Central nervous system Haemopoietic system Respiratory system Digestive tract Analgesics and anti-inflammatory drugs; Antihistamines Hormones and hormone antagonists Antimicrobial and other anti-infective drugs Cardiovascular drugs Poisoning and drug treatment in emergencies Cough /Emphysema Ulcers / Constipation / Diarrhoea	CA

#### 6.9 BACHELOR OF HEALTH SCIENCES: RADIOGRAPHY

MODULE (CODE)	LEARNING AREAS/CONTENT	ASSESSMENT PLAN
Anatomy I ANTMI0I	Introduction to Anatomy Musculoskeletal Anatomy	CA
Anatomy II ANTM201	Thorax Abdomen and Pelvis Limbs and Back Neuroanatomy Head and Neck	CA
Physiology IA PYSA101	Introduction Cells & Tissues Integumentary System Skeletal System Muscular System Nervous System & Senses Endocrine System	CA
Physiology IB PYSB101	Cardiovascular System Lymphatic & Immunity Respiratory System Digestive system Urinary System Reproductive System	CA

#### 6.10 NATIONAL DIPLOMA: SOMATOLOGY

MODULE (CODE)	LEARNING AREAS/CONTENT	ASSESSMENT PLAN
Anatomy and Physiology for Somatology APHSI0I	Introduction to living organisms Cells & Tissues Integumentary System Skeletal System Muscular System Nervous System & Senses Endocrine System	CA
Anatomy and Physiology for Somatology APHS102	Cardiovascular System, Blood, Heart & Vessels Lymphatic System Respiratory Systems Digestive System Urinary System Reproductive Systems	CA
Disease Fundamentals DSFD101	Overview of disease processes and fundamental terminology. Disorders of cells and tissues, skin, bone, joints, muscles and pregnancy. Disorders in the neurological, digestive, endocrine, cardiovascular, lymphatic, immune, respiratory, renal and reproductive systems	CA
Basic Pharmacology I BSPH101	Introduction and basic pharmacology Care and control of Medicines Pharmacokinetics and Pharmacodynamics Obesity Contraceptives Topical Dermatological Drugs acting on the heart and blood Antimicrobials Drugs acting on the GIT	CA

Drugs acting on the CNS Anti inflammatory drugs and analgesics	

#### 6.11 HIGHER CERTIFICATE: DENTAL ASSISTING

MODULE (CODE)	LEARNING AREAS/CONTENT	ASSESSMENT PLAN
Pharmacology for Dental Assisting PHDA101	Introduction to Pharmacology Terminology Pharmacokinetics Pharmacodynamics Analgesics Antimicrobials Sedative / hypnotics Miscellaneous Classes Drug Interactions Prescription Writing	CA