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UNIVERSITY OF NAMIBIA

FACULTY OF HEALTH SCIENCES
& VETERINARY MEDICINE

School of Medicine

PROSPECTUS 2026

Open your mind

PROSPECTUS 2026

SCHOOL
OF
MEDICINE

UNAM
UNIVERSITY OF NAMIBIA

NOTE

This Prospectus is only valid for 2026 as regulations and syllabi may be amended for 2027. The general regulations and further information appear in the General Information and Regulation Prospectus. Although the information contained in this Prospectus has been compiled as accurately as possible, it is possible that errors and omissions have inadvertently occurred, for which we apologise in advance. The University reserves the right to amend any regulation or stipulation without notice. The information is correct up to 30 November 2026.

The fact that particulars of a specific module or programme have been included in this Prospectus does not necessarily mean that the module or programme will be offered in 2026. This Prospectus must be read in conjunction with the *General Information and Regulations Prospectus 2026*.

SCHOOL OF MEDICINE PREAMBLE

Mission Statement of the School of Medicine

The mission of the School of Medicine is to educate health professionals whose knowledge, skills, and medical practices align with the evolving needs of society, including emerging healthcare trends and scientific advancements. The School is committed to fostering an environment that supports the development of professional competence in health workers while delivering high-quality services to the community. Additionally, the School engages in relevant translational research aimed at improving health outcomes. We continually strive to establish training programs across a broad range of health disciplines, supporting the nation's human resource development initiatives, including postgraduate education for physicians and scientists. The School is responsible for preparing graduates to attain a medical degree (MBChB) from the University of Namibia.

Key Objectives of the School of Medicine

- To promote equitable access to healthcare services for all individuals.
- To support the delivery of affordable healthcare by strengthening systems that are sustainable, cost-effective, efficient, and culturally appropriate.
- To implement strategies to address major health risks, including the control of prevalent communicable diseases.
- To produce academically and professionally qualified medical doctors in sufficient numbers to meet the demands of various healthcare delivery systems.
- To contribute to the development of a national healthcare system capable of offering a comprehensive range of preventive, curative, and rehabilitative services that are sustainable, cost-effective, and acceptable to the community.
- To conduct research that addresses the healthcare needs of Namibian society and supports the delivery of high-quality healthcare services.

SCHOOL OF MEDICINE OATH

All (Students and Faculty):

We pledge to serve our patients, their families, our community and each other with respect, competence, compassion, and humility. We hold as our ideal to care and treat all our patients. From them we will learn. We hold as our ideal the advancement of knowledge. Through it disease will be understood, prevented and cured. We hold as our ideal open-minded collaboration. To this we are collectively committed.
We hold as our ideal critical self-evaluation. Through this we will grow.

Faculty:

We, your faculty, promise to serve as worthy role models, as our own teachers have before us.

Students:

We, your students, recognize the excellence and commitment of those from whom we learn.

Faculty:

We promise to support your personal and professional growth, in health care settings, in the laboratory, in the community, and through your own teaching.

Students:

We promise to pursue responsibly our calling to patient care, to service, and to research.

Faculty:

We promise to maintain an environment where scientific integrity and ethical standards sustain your trust in us.

Students:

We commit ourselves to the highest standards of academic honesty, scientific integrity and ethical practice as students and in our professional lives.

All (students and faculty members):

We honour The University of Namibia, the Medical Board and our Government's history of service to the people of this nation. We accept the challenges and opportunities of those alumni whom we follow. We vow to be professional, punctual and courteous. We vow to honour and respect life on earth, in all forms, crawling and reasoning, with intellect or with handicap,

to be ambassadors of healthy living and a prosperous future. We vow to take to heart and mind that all men are created equal. We vow to uphold this pledge and our assistance to others who do the same.

UNAM 2026 CORE DATES

SEMESTER 1	
08 January	University Open
20 January	Academic Staff Resumes Office Duties
04 March	"We care for UNAM" day
03 April	First Semester Break commences for students (Until 6 April)
07 April	Lectures resume After FIRST SEMESTER BREAK
10 July	End of FIRST SEMESTER
20-24 July	Mid-Year Break
SEMESTER 2	
26 August	Second semester BREAK for students commences (Until 27 August)
28 August	Institutional Holiday
31 August	Lectures resume after SECOND SEMESTER BREAK
04 December	End of Second Semester
11 December	End of Academic Year
2026 ACADEMIC YEAR	
7 January	University opens for 2026 academic year
19 January	Academic staff resumes office duty for 2027 academic year

REGISTRATION AND ACADEMIC ADMINISTRATION DATES

DATE	ACTIVITY
05 January	**ONLINE REGISTRATION COMMENCES**: • All Senior Students (until 30 Jan 2026)
08 January	Institution opens (all administrative staff)
12 January	**REGISTRATION COMMENCES**: • First year students (freshmen) until (30 Jan 2026) • **CORE SEMESTER** (New Curriculum Professional Programmes) commences 21 January • **CORE SEMESTER** (New Curriculum Programme) commences 28 February
19 January	Professional Programmes Semesters Lectures commence for FIRST SEMESTER
26 January	**REGISTRATION COMMENCES**: • Postgraduate Students (Masters and Doctorate Degrees) (until 30 Jan 2026) **ACADEMIC ADMINISTRATION** – Application for module(s) exemptions commence • First year student (until 13 February) • Senior students (until 27 March)
30 January	**REGISTRATION ENDS**: • First year students (freshmen) and new curriculum students
02 February	**LATE REGISTRATION Commences** (until 06 February) • All first year and senior new curriculum students
06 February	**LATE REGISTRATION ends for**: • All first year and senior new curriculum students
13 February	**ACADEMIC ADMINISTRATION** • Last day for module(s) exemption applications – first year students • Last day for approval of module(s) and qualification offering types changes - First year students
02 February	**LATE REGISTRATION Commences** (until 06 February) • All first year and senior new curriculum students
06 February	**LATE REGISTRATION ends for**: • All first year and senior new curriculum students
13 February	**ACADEMIC ADMINISTRATION** • Last day for module(s) exemption applications – first year students • Last day for approval of module(s) and qualification offering types changes - First year students
27 March	**ACADEMIC ADMINISTRATION** – Application for module(s) exemption ends
09 April	**GRADUATION**: Southern Campus
14 April	**GRADUATION**: Katima Mulilo Campus
16 April	**GRADUATION**: Rundu Campus
22 April	**GRADUATION**: Northen Campuses

27 April	**ACADEMIC ADMINISTRATION** – Last day to change offering types for year modules
28-29 April	**GRADUATION**: Windhoek Campuses
20 July	**ACADEMIC ADMINISTRATION** – Addition and cancellation of SECOND SEMESTER modules commence (until 24 July)
24 July	**ACADEMIC ADMINISTRATION** – Addition and cancellation of SECOND SEMESTER modules end
08 October	**SPRING GRADUATION**

CANCELLATION DATES

DATE	ACTIVITY
30 January	Last day to cancel CORE SEMESTER modules with 100% credit
13 February	Last day to cancel CORE SEMESTER modules with 50% credit
20 February	Last day to cancel CORE SEMESTER modules – no credit Last day to cancel FIRST SEMESTER modules with 100% credit (Old curriculum students)
13 March	Last day to cancel FIRS SEMESTER and year modules with 100% credit (New curriculum students) Last day to cancel FIRST SEMESTER modules with 50% credit (Old curriculum students)
13 April	Last day to cancel FIRST SEMESTER modules with 50% credit (New curriculum students
27 April	Last day to cancel FIRST SEMESTER modules – no credit (All students)
06 July	Last day to cancel YEAR modules with 50% (All students)
10 August	Last day to cancel SEMESTER 2 modules with 100% (All students)
28 September	Last day to cancel SEMESTER 2 and YEAR modules – no credit (All students)

Final 1st, 2nd, 3rd, 4th, 5th, 6th School of Medicine Academic Calender 2026

JANUARY	
06 Jan	Online registration (All senior students - until 17 Jan)
09-Jan	University Opens
19-Jan	• Academic staff resume office duties (for senior students – MBChB III, IV, V & VI) • Lectures commence for First Semester for New curriculum Professional Programmes for MBChB III (16 weeks) (until 15 May)
20-Jan	• CILT: eLearning orientation for students • Academic staff resume office duties (unam at large)
26-Jan	• Block lectures commence for MBChB IV • First Semester clinical rotation commences for MBChB V (Onandjokwe/Oshakati) • Clinical rotation commences for MBChB VI
FEBRUARY	
20-Feb	Clinical rotation ends for Year 5 MBChB
23-Feb	Clinical rotations commence for Year 5 MBChB
March	
06-Mar	• Block lectures end for MBChB IV
16-Mar	• First opportunity Examinations commence for MBChB IV
23-Mar	• Clinical rotation ends for MBChB V • Clinical rotation ends for MBChB VI
27-Mar	• First opportunity Examinations end for MBChB IV • Respiratory Course mandatory for all MBChB V students (until 28 March)
30-Mar	• Second opportunity Examinations commence for MBChB IV • Clinical rotation commences for MBCHB IV
April	
2-Apr	• NEW CURRICULUM PROFESSIONAL PROGRAMMES (14 WEEK SEMESTERS: • Semester break commence (until 7 April) • PROFESSIONAL PROGRAMMES 16 WEEK SEMESTERS: • Short semester break (until 7 April) • Second opportunity Examinations end for MBChB IV
8-Apr	• NEW CURRICULUM PROFESSIONAL PROGRAMMES (14 WEEK SEMESTERS): • Lectures commence after semester break • PROFESSIONAL PROGRAMMES 16 WEEK SEMESTERS: • Lectures commence after semester break
17-Apr	• Clinical rotation ends for MBChB V
20-Apr	• Clinical rotation commences for MBChB V
May	
02-May	• Clinical rotation ends for MBChB IV
05-May	• Clinical rotation commences for MBChB IV
15-May	• Lectures end for First Semester for New curriculum Professional Programmes for MBChB III • Clinical rotation ends for MBChB V • Clinical rotation ends for MBChB VI
18-May	• Clinical rotation commences for MBChB V • Clinical rotation commences for MBChB VI
20-May	• First opportunity Examinations commence for New curriculum Professional Programmes for MBChB III (until 05 June)

June	
05 June	• First opportunity Examinations end for New curriculum Professional Programmes for MBChB III
08-Jun	• COBES commence for MBChB III students – 4 weeks (until 03 July) • Second opportunity Examinations commence New curriculum Professional Programmes for MBChB III (until 16 June)
12-Jun	• Clinical rotation ends for MBChB V
15-Jun	• BREAK for MBChB V (for the north only) (until 19th June) • Second Semester clinical rotation commences for MBCHB V (Onandjokwe/Oshakati) (Until 06-Nov)
16-Jun	• Second opportunity Examinations end for Professional Programmes for MBChB III
19-Jun	• Clinical rotation ends for MBChB IV
22-Jun	• Clinical rotation commences for MBChB IV • Clinical rotation commences for MBCHB V • Mid-year Examinations commence for MBChB IV, V & VI
29-Jun	• First opportunity Examinations end for New curriculum Professional Programmes (MBChB I & II)
JULY	
03-Jul	• COBES ENDS for MBChB III • Mid-year Examinations end for MBChB IV, V & VI
06-Jul	• Clinical rotation commences for MBChB III (until 30 Oct) • Lectures commence for Second Semester New curriculum Professional Programmes for MBChB III (16 weeks) (until 30 October)
10-Jul	• Clinical rotation ends for MBChB VI
13-Jul	• BREAK for MBChB VI (until 17th July)
17-Jul	• Clinical rotation ends for MBChB V
20-Jul	• Clinical rotation commences for MBChB V • Clinical rotation commences for MBChB VI
AUGUST	
07-Aug	• Clinical rotation ends for MBChB IV • Clinical rotations end for MBChB III
10-Aug	• Clinical rotation commences for MBChB III • Clinical rotation commences for MBChB IV
14-Aug	• Clinical rotation ends for MBChB V
17-Aug	• Clinical rotation commences for MBChB V
26-Aug	• Semester Break starts (until 28 August) for MBChB I & II
31 Aug	• Lectures resume after Semester break for MBChB I & II

SEPTEMBER	
04-Sept	• Clinical rotations end for MBChB III
07-Sept	• Clinical rotation commences for MBChB III
11-Sept	• Clinical rotation end for MBChB V • Clinical rotation ends for MBChB V
14-Sept	• Clinical rotation commences for MBChB V • Clinical rotation commences for MBChB VI
18-Sept	• Clinical rotation ends for MBChB IV
21-Sept	• Clinical rotation commences for MBChB IV
OCTOBER	
02-Oct	• Clinical rotation ends for MBChB III
05-Oct	• Clinical rotation commences for MBChB III
09-Oct	• Clinical rotation ends for MBChB V
12-Oct	• Clinical rotation commences for MBChB V
30-Oct	• CLINICAL ROTATIONS & LECTURES END FOR MBChB III • Announcement of final CA marks for MBChB III • Clinical rotation ends for MBChB IV
NOVEMBER	
06 Nov	• Clinical rotation ends for MBChB V (Onandjokwe/Oshakati) • Clinical rotations end for MBCHB VI
09-Nov	• First opportunity Examinations commence for New curriculum Professional Programmes for MBChB III (until 23 Nov) • Examinations commence for MBChB IV
16-Nov	• Examinations commence for MBChB V • Examinations commence for MBChB VI
20-Nov	• Examinations end for MBChB IV
23-Nov	• First opportunity Examination end for New curriculum Professional Programmes for MBChB III • COBES commence for MBChB IV
27-Nov	• Second opportunity Examinations end for New curriculum Professional programmes for MBChB III • Examinations end for MBChB V
30-Nov	• Electives commence for MBChB V • Examinations end for MBChB VI
DECEMBER	
18-Dec	• **END OF ACADEMIC YEAR** • COBES end for MBChB IV
25-Dec	• **Electives end for MBChB V**
JANUARY 2026	
08-Jan	**University reopens**

SUPPORTING STRUCTURE AND PERSONNEL

Executive Dean	Prof C Wilders
Associate Dean School of Medicine	Prof J Misihairabgwi
Faculty Manager	Mr A Fledersbacher
Campus Administrator	Ms D Titus
Faculty Officer	Ms I Peter
Secretary/Administrator	Ms R Reinhord
Examination Officer	Mr M Kandukua
Student Records Officer	Mr M Nowaseb
Student Support Officer	Mr A Ngwangwama
Security Officer	Mr P Mapeu
ICT Officer	Mr A Shikongo
ICT Officer	Mr S Shilongo

General enquiries regarding the School of Medicine and the qualifications offered by the school should be directed to:

Ms I. Peter
The Faculty Officer
School of Medicine
University of Namibia
Private Bag 13301
WINDHOEK
Telephone: +264-61-2065015
E-mail: ipeter@unam.na

ACADEMIC DEPARTMENTS

ASSOCIATE DEAN

☎ (+264 61) 2065039 jmisihairabgwi@unam.na ✉ Private bag 13301, Windhoek, Namibia

Acting Associate Dean: Associate Professor: Prof Jane Misihairabgwi PhD (Biochemistry) University of Zimbabwe; BSc (Hons) (Biochemistry); University of Zimbabwe; Postgraduate Diploma in Higher Education (Health Sciences) University of Namibia

DEPARTMENT OF HUMAN, BIOLOGICAL & TRANSLATIONAL MEDICAL SCIENCES

☎ (+264 61) 2065043 ehaindongo@unam.na ✉ Private bag 13301, Windhoek, Namibia

Head of Department: Dr. EHH Haindongo, BSc Microbiology & Biochemistry; Master of Science (Biology), PhD (Medical Microbiology) University of Turku, Finland

Full Professor: Prof Q Wessels, NDip (Biomedical Technology) Tshwane University of Technology; BSc (Medical Sciences); BSc (Hons) Cell Biology; MSc (Anatomy) University of Pretoria; PhD (Anatomy) University of Pretoria; MSc (Clinical Education) University of Edinburgh; PhD (Health Sciences Education) University of Cape Town; PGCert (Mentorship and Coaching (University of Sunderland), FHEA, FAS

Full Professor: Prof. J Misihairabgwi PhD (Biochemistry) University of Zimbabwe; BSc (Hons) (Biochemistry); University of Zimbabwe; Postgraduate Diploma in Higher Education (Health Sciences) University of Namibia

Asso Research Professor: Prof MM Claassens, MBChB, Stellenbosch University; BSc (Hons) Pharmacology, North West University, South Africa; MPhil (Applied Ethics), Stellenbosch University, South Africa, PGDip (Epidemiology), London School of Hygiene and Tropical Medicine; MSc (Epidemiology), London School of Hygiene and Tropical Medicine (London); PhD, University of Amsterdam, the Netherlands; Postdoctoral fellowship; Stellenbosch University, South Africa; PG. Dip. Monitoring and Evaluation, Stellenbosch University, South Africa; Executive certificate in public leadership, Harvard Kennedy School, Boston, USA; PG. Cert. Social Justice, Harvard Extension School, Boston, USA.

Associate Professor: Prof. J A Sheehama, PhD Biology (Medical Microbiology and Medical Biochemistry) Kazan State University; Masters in Biology (Microbiology and Molecular Biology) Kazan State University

Associate Professor: Prof. E Nepolo, PhD (Biochemistry) University of Namibia, MSc (Applied Molecular Biology); University of Namibia; BSc (Molecular & Physiological Biology); University of Namibia

Senior Lecturer: Dr A M N Shatri BSc (Hons) Microbiology & Biochemistry; Master of Science (Applied Human Biology), University of Namibia, PhD (Applied Human Biological Sciences (Nano Medicine).

Senior Lecturer: Dr C Musarurwa, PhD (Chemical Pathology); MSc Clinical Biochemistry; MSc Clinical Epidemiology; General Diploma Medical Laboratory Technology, University of Zimbabwe

Senior Lecturer: Dr A Du Plessis, MBChB University of Stellenbosch; DCH College of Medicine, South Africa, PgDip (Health Professionals Education) UCT, MPhil (Health Professions Education, Stellenbosch University

Senior Lecturer: Dr A Poolman BSc Human Life Science; BScHons (Cum Laude) Human Anatomy; MSc Human Anatomy; PhD Anatomy (University of Pretoria)

Lecturer: Mr. CD Izaaks, ND (Medical Technology) Cape Technikon, South Africa; B Tech (Biomedical Technology), Cape Peninsula University of Technology, South Africa; MTech [cum laude] (Cape Peninsula University of Technology, South Africa; PGDHE (UNAM); Registered Medical Technologist (Allied Health Professions Council of Namibia)

Lecturer: Ms H Zaire, MSc Epidemiology (Wageningen University, The Netherlands); MPH (Master of Public Health) (TUFTS University, USA); BSc. Animal Science University of Namibia

Lecturer: Mr. Nikanor Boas Johannes, S Sc. (UNAM), P Phil. Medical Physics (University of Ghana).

Lecturer: Mr S Nghoshi, MSc in Applied Field Epidemiology (UNAM), BSc Molecular, Physiological and Environmental Biology

Lecturer:	Ms T Hatuikulipi, MSc (Molecular and Cellular Immunology: Oncology), University of Constantine 1, Algeria; BSc Immunology, University of Constantine 1, Algeria
Lecturer:	Ms J Nelongo, MSc (Biology) & BSc (Molecular & Physiological Biology and Chemistry) University of Namibia; BTech & ND (Biomedical Technology) Cape Peninsula University of Technology; PGDHE (Health Sciences) University of Namibia.
Lecturer:	Ms LNN Shipingana, BSc (Hons) Molecular Biology & Biochemistry, University of Namibia; MSc Molecular Biology, JSS University, India
Lecturer:	Ms J Namene. BSc (Hons) Microbiology & Biochemistry, University of Namibia; MSc (Forensics), JSS University, India; MSc Physiology, University of Namibia
Lecturer:	Ms TPT Keendjele, BSc (Physiology) University of Pretoria, BHSc with Honours (Physiology) University of the Witwatersrand; MSc Physiology, University of Namibia
Lecturer:	Ms HH Eelu, BSc (Human Genetics) University of Pretoria, BSc Hons (Molecular and Cell Biology) University of Cape Town, PgDip (Health Professionals Education) UCT, MSc (Control of Infectious Diseases) London School of Hygiene and Tropical Medicine.
Lecturer:	Dr Monet Viljoen, BSc Human Life Sciences, University of Stellenbosch, BSc (Hons), Physiological Sciences, University of Stellenbosch, MSc, Physiological Sciences, University of Stellenbosch, PhD, Physiological Sciences and Psychiatry, University of Stellenbosch
Lecturer:	Ms K Niiteta, BSc (Hons) Biochemistry & Chemistry, University of Namibia; MSc Pathology, University of Namibia.
Lecturer:	Ms. O. Katalie, BSc (Hons)Biochemistry &Biology, University of Namibia; MSc Biological Sciences, University of Cape Town.
Senior Technologist:	Lusia Mhuulu, BSc (Biochemistry and Chemistry) University of Namibia, MSc (Biochemistry and Molecular Genetics) University of Namibia
Technologist:	Mr P Usiku, B Tech Biomedical Technology, Cape Peninsula University of Technology, South Africa; Bachelor of Laws, University of Namibia, Certificate in Pharmacy Assistant, National Health Training Centre
Technologist:	Mr FI Tshavuka, MSc Clinical Laboratory Diagnostics (Chongqing Medical University); BSc (Hons) Biomedical Science, Namibia University of Science and Technology
Technologist:	Ms Tunelago Nashihanga, BSc (Hons) Microbiology & Biochemistry, University of Namibia; Cert. Principles of Effective Teaching, University of Namibia; PG Cert. Clinical Microbiology and Infectious Diseases, University of Edinburgh
Technologist:	Ms Maria Angula, PhD Medical Microbiology, MSc Microbiology, University of Namibia; BSc Hons Microbiology and Chemistry, University of Namibia, Postgraduate diploma in Education, International University of Management, Namibia
Technician:	Mrs D Bouman, BSc Zoology & Physiology, University of South Africa
Technician:	Mr JJ van der Merwe, BMedSci University of the Free State, BMedSci (Hons), University of the Free State, HED University of South Africa
Technician:	Mr. Marius van der Merwe, BHSc North-West University, MPhil (Health Sciences Education) Stellenbosch University

DEPARTMENT OF MEDICAL SCIENCES

☎ (+264 61) 2065101 fyimer@unam.na ✉ Private bag 13301, Windhoek, Namibia

Head of Department:	Dr Fasika Tesfaneh Yimer, MD (Gondar University), Ethiopia; MMed Internal Medicine (Addis Ababa University College of Health Sciences), Sub-speciality Certificate in Clinical Neurology (Addis Ababa University College of Health Sciences in collaboration with Mayo Clinic, Rochester.
Senior Lecturer:	Dr Felicia Christians, MBChB (University of Cape Town), M. Med Family Medicine (University of Cape Town), MPH (Umea University, Sweden), MCFP/ FCFP (Colleges of Medicine South Africa), Dip HIV Management (Colleges of Medicine South Africa)
Senior lecturer:	Dr. Adebayo Adebisi Sunday: MBChB (Olabisi Onabanjo University, Nigeria), MSc Physiology (Usmanu Danfodiyo University, Sokoto, Nigeria), Fellow of the Medical College of Psychiatrists (FMCPsych) Nigeria.
Lecturer:	Dr. Tirumebet Mezgebu Minayehu: MD (Gondar University, Gondar Ethiopia), MMed Internal Medicine (St. Paul Hospital Millennium Medical College, Addis Ababa Ethiopia), Sub speciality in Haematology & bone Marrow Transplant (Christian Medical College, Vellore India)
Lecturer:	Dr. Abebe Worku Teshager: MD (University of Gondar, Gondar Ethiopia) Speciality in Internal Medicine (University of Gondar, Gondar Ethiopia)
Lecturer:	Dr Jan C Kuehne MBChB (University of Cape Town), M. Phil Applied Ethics (Stellenbosch University), Dip HIV Management (Colleges of Medicine South Africa), MMed Family Medicine (University of Cape Town), Cert. In Health Science Education (SAFRI)
Lecturer:	Dr. Hoandi //Hoes (MBChB University of Namibia), Postgraduate diplomat in Family Medicine year 2, UNAM School of Medicine
Lecturer:	Ms Sigrid Shaanika: Master of Arts Degree in Counselling/Clinical Psychology- University of Pretoria Master of Social Sciences Degree in Psychology - University of Cape Town (South Africa), Bachelor of Arts Honors Degree in Psychology- University of Stellenbosch (South Africa)
Lecturer & skills lab coordinator:	Dr. Edith Hamukwaya-Nawa MNSc (UNAM), PM (UCT), PG Dip (critical care) (UNAM), 14DCNM (UNAM), PhD in Nursing, NWU.
Lecturer & COBES coordinator:	Mrs. Ndiitodino Kakehongo, MSc, (Applied Field Epidemiology) (UNAM), BNSc, (Clinical)(Hons) (Community Health, General Nursing Science & Midwifery Science) (UNAM).

DEPARTMENT OF MATERNAL & CHILD HEALTH

☎ (+264) 61 206 5084 rmano@unam.na ✉ Private bag 13301, Windhoek, Namibia

Head of Department:	Dr Runyararo Mano. Specialist Paediatrician, MBChB (UZ), MMED Paeds UZ), Dip HIV Man (SA), AHMP (FPD/Yale)
Lecturer:	Dr Benjamin J Nggada, MBBS (Unimaid), Fellow West African College of Surgeons (FWACS (Nigeria)), Master in International Relations and Diplomacy (MIRD (UniAbuja)
Lecturer:	Dr Ausbert T Msusa. Specialist Obstetrician/Gynaecologist: MBBS University of Malawi; Fellow of the College of Obstetricians and Gynaecologists of South Africa (FCOG(SA))
Lecturer:	Dr Annie F Muyotcha. Specialist Obstetrician/Gynaecologist: MBChB (UZ) MMed (Obstetrics and Gynaecology) (UZ)
Lecturer:	Dr Lahia-Tonateni Iipumbu Specialist Paediatrician, MBChB(Unam), DCH(SA), Dip HIV Man(SA), FCPaeds(SA)

DEPARTMENT OF SURGICAL SCIENCES
☎ (+264) 812990066 ysaad@unam.na ✉ Private bag 13301, Windhoek, Namibia

Head of Department:	Dr Youssef Saad. MB. B Ch. (Assuit University, Egypt); Masters in General Surgery (M Sc., Assuit University, Egypt; MRCS (Membership of Royal College of Surgeons of Edinburgh, U.K.), Diploma of Laparoscopic Surgery (IRCARD, France).
Associate Professor	Prof Ambrose Rukewe. MBBS (University of Ilorin, Nigeria); DA (University of Ibadan, Ibadan, Nigeria); MSc (University of Ibadan, Ibadan, Nigeria); FMCA (National Postgraduate Medical College of Nigeria, Lagos, Nigeria)
Senior Lecturer	Dr Celestine B Mbangtang. MBBS (University of Ibadan, Nigeria); DA (Postgraduate Diploma in Anaesthesia, University of Ibadan, Nigeria); MMed (Surg), University of Zimbabwe; FRCS (Edin) Royal College of Surgeons of Edinburgh, Scotland; FCS (ECSA) College of Surgeons of East, Central and Southern Africa; FICS, International College of Surgeons.
Senior Lecturer	Dr Edward Fynn. MBChB (Ghana) DCH(SA), M. Med (Radiodiagnostics) FCRad(SA). Postgraduate Diploma in Management (Wales)
Senior Lecturer	Dr Onochie Nweze, , MBBS (University of Port Harcourt, Nigeria); PGDA (West Africa College of surgeons); FWACS (West Africa College of Surgeons(Anaesthesia); WFSA Fellowship in Neuroanaesthesia (Cairo University);FCA (ECSA) College of Anaesthesiologists of East, Central and Southern Africa MBBCh., FWACS (Specialist Anaesthesiologist).
Lecturer	Dr Ndhlovu Munyaradzi, MBChB., M Med General surgery, University of Zimbabwe.
Lecturer	Mr Nikanor Boas Johannes, S Sc. (UNAM), P Phill. Medical Physics (University of Ghana).

DEGREE: BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (MBChB) 26BMCH

Purpose of the Qualification

The purpose of this qualification is to develop health professionals whose knowledge, professional skills, attitudes, and behaviours in medicine align with the needs of society. The key drivers behind this curriculum are constructive alignment, vertical and horizontal integration, and fitness to practice.

The transformation of the Bachelor of Medicine and Bachelor of Surgery (MBChB) curriculum has been shaped through extensive stakeholder engagement and in collaboration with the Health Professions Council of Namibia (HPCNA). Influenced by the Sustainable Development Goals (SDGs) and the National Development Plan (NDP), the curriculum incorporates skills related to the Fourth Industrial Revolution (4IR) across various modules.

The curriculum emphasizes competency-based assessments rather than focusing solely on content. This includes work-based assessments, integrated research, and evaluations of professional values and practice. A blended learning approach is prioritized, with a strong emphasis on student-centred learning. Furthermore, the curriculum promotes the internationalization of education, encouraging independent, lifelong learning.

GRADUATE EMPLOYABILITY ATTRIBUTES

The following graduate attributes shall define the philosophy of the Bachelor of Medicine and Bachelor of Surgery programme:

1. Clinical reasoning and judgement
2. Clinical problem solving
3. Ethical and moral decision making and leadership
4. Compassion
5. Independent life-long learning
6. Inter- and trans professional teamwork
7. Technological and academic literacy
8. Global citizenry and international perspective
9. Environmental awareness and social responsibility
10. Resilience
11. Impactful

CAREER OPPORTUNITIES

Upon qualification and registration, graduates of the Bachelor of Medicine and Bachelor of Surgery (MBChB) program from the School of Medicine can pursue careers in both the public and private healthcare sectors. Based on data from the Needs Assessment, most of our graduates work in the public sector, where they are employed in various departments such as psychiatry, surgery, orthopedics, anesthesiology, family medicine, and community medicine. The range of employment opportunities is extensive, with career pathways that include roles from resident medical officers to specialist physicians. Additionally, career opportunities extend beyond clinical practice and encompass a variety of other fields, including:

- Health Journalist
- Medical Teacher
- Clinical Forensic Medical Examiner
- Medical Photographer
- Medical/ Pharmaceutical Researcher
- Sports and Exercise Medicine
- Medical Legal Advisor
- Transplant Coordinator

DURATION OF STUDY

The minimum duration for the Bachelor of Medicine and Bachelor on Surgery (MBChB) is six (6) years. Candidates must complete the MBChB programme within eight (8) years of full-time study.

ARTICULATION OPTIONS

Graduates from Bachelor of Medicine and Bachelor of Surgery programme are eligible for further clinical specialty, scientific, and management training at post-graduate Master's, Doctoral, and Fellowship programmes.

CRITERIA FOR ADMISSION

To be considered for admission to the School of Medicine, a candidate must have obtained the following grades at Namibian Senior Secondary Certificate Ordinary Level / Namibian Senior Secondary Certificate Higher Level (not older than 2 years) /Namibian Senior Secondary Certificate Advanced Subsidiary Level or equivalents from a recognized qualification:

a) A minimum of 35 points in five subjects on the UNAM Evaluation Scale. In addition, the following subjects and grades will be required:

- English with a minimum B symbol or better at NSSC Ordinary Level (or C symbol with a minimum of 37 points), or a minimum "c" or better at NSSCAS Level
- Biology with a minimum "b" or better at NSSCAS Level
- Mathematics with a "b" or better at NSSCAS Level
- Chemistry and Physics with a "c" or better at NSSCAS Level

b) A completed undergraduate degree programme in Pharmacy, Nursing, Dentistry or other health-related degree programme at a minimum of Bachelor's or Bachelor of Technology degree level such as a Science degree in Biological or Medical Sciences, with an average of at least 60% over the final two completed years of study. **National Diplomas, Technical Diplomas, Certificates and similar qualifications CANNOT be considered for entry**.

- Sciences Requirements for applicants who have obtained and completed an undergraduate degree (**ALL of the following are compulsory**): 60% for first year university degree level Biology (Full course). Equivalent courses such as Anatomy, Physiology, Zoology, Life Sciences and similar courses will also be considered; 60% for first year university degree level Physics (Half Course); 60% for first year university degree level Chemistry (Half Course).
- The above three subjects (Biology, Physics and Chemistry) **MUST** be completed at first-year of a university Bachelor's degree or higher. Applicants will only be considered if they have obtained the minimum UNAM points as outlined above. All courses during their duration must be passed with 60% and above to be considered for admission.
- Applicant is not allowed to have 50s in any courses or repeated courses during the duration of their studies (1st to final year).

c) Transfer of students from other programmes in other Schools in the Faculty of Health Sciences and Veterinary Medicine, including Pharmacy, Dentistry, Nursing and public health, Allied health and veterinary medicine, will be subjected to the approval by Associate Deans of the concerned schools, as well as approval by the School of Medicine AAGC and if they have obtained the minimum UNAM points as outlined above or as determined by the School AAGC.

d) Transfer of students from other Medicine degree programmes from other institutions or universities, may be considered by the School AAGC based on availability of space and if they have obtained the minimum UNAM points as outlined above or as determined by the School AAGC.

e) Mature Age candidates will not be considered.

Meeting the above student admission criteria **DOES NOT** necessarily ensure admission. Admission is based on the number of places available and is awarded on the basis of merit and other criteria and any other conditions that may be determined from time to time. The Faculty/School reserves the right to administer special written entry tests and interviews for shortlisted candidates before final admission.

Only candidates who have applied for Bachelor of Medicine and Bachelor of Surgery as first choice will be considered for selection into the programme.

ASSESSMENT AND EXAMINATION CRITERIA

ASSESSMENTS CRITERIA

- A student will be eligible to write the examination if they have obtained a Continuous Assessment Mark of 50% and above.
- Unless otherwise indicated in the module descriptor, the Continuous Assessment Mark (CA mark) will count 40% towards the final mark while the examination mark will contribute 60%.
- A student may qualify for a supplementary examination in a pre- and para-clinical module if he/she obtained a final mark of 45%-49%, subject to a subminimum of 50% in each of the two examination assessment components (written, and clinical/practical).
- A student will pass a module when he/she has obtained a final mark of 50% and above.
- All Clinical modules, a subminimum of 50% will apply for all written and practical/clinical examinations.

MID-YEAR EXAMINATION (JUNE/JULY EXAM CYCLE) – AS PER UNIVERSITY RULES & REGULATIONS APPROVED BY SENATE

- ***Mid-Year Examination will be granted as follows:***
    - Mid-year examinations will be allowed for the fourth-, fifth- and sixth-year clinical modules. Should a student fail, he/she will therefore have to repeat the module(s), this will require the student to rotate again, to build up a new CA and sit for the June/July 2nd opportunity examination.
    - The mid-year examination is only applicable to students who qualified for the examination and set for the 1st opportunity and failed the exams. Student must have failed 1 or 2 clinical modules outstanding from year fourth-, fifth- and sixth-year clinical modules to sit for mid-year examinations. Students sitting for mid-year examination modules for 1 or 2 clinical modules will not be required to register for these modules.
    - A student who fails more than two (2) clinical modules, **WILL NO**T be allowed to sit for mid-year examination for the clinical modules failed, but will have to follow the normal progression and advancement rules laid out herein and sit for the Nov/December examination. A module not done in the previous academic year due to a pre-requisite is regarded as outstanding/failed. Block lecturer modules such as Psychiatry 1 & Anaesthesiology 1 they are clinical modules even if they are offered under the block lecturer semester.
    - Surgery II subspecialities will be viewed as one module only during the mid-year examination when writing exam and not with the advancement and progression rules. This will only count if a student does not have other outstanding clinical modules. Student are requested to read the advancement and progression rules together with mid-year examination rules.
    - Students will not be allowed to register for the follow up module during the same academic year, after clearing the modules during the mid-year examination.

- ***An exit mid-year examination for year 6 students with 3 and a maximum of 4 clinical outstanding will be granted as follows:***
    - A student with a maximum of year modules will be allowed to sit for the exit mid-year examination provided two of modules are 4 weeks rotation and other two are 8 weeks rotation by the end of 1st semester.
    - To sit for the mid-year exam is mandatory to clearing the all modules from 1st to 5th year including Research Project by the end of your fifth year so that you can be allowed graduate during the in-spring graduation. Students carrying the Research Project or any other modules that are not offered in 6th year, will not be allowed to graduate during the spring graduation.
    - Year six student who are repeating 3-4 modules from a previous year will not be eligible to register for the modules, however they are required to complete a promotional examination form at the beginning of the year that will allow them to sit for exit mid-year examination.
    - Students who are doing the modules at year six for the first time, will be required to register for these modules in that particular academic year.

For detailed examination and promotion rules see the General Information and Regulations Prospectus. It is a student's responsibility to ensure that before they sit for the mid-year examination or exit mid-year examination that they indeed meet the requirements.

MINIMUM REQUIREMENTS FOR RE-ADMISSION INTO THE PROGRAMME

To be readmitted to the School of Medicine, a student must have successfully completed the following minimum number of credits as indicated below: A student will not be re-admitted into the programme if she/he has not earned:

1. At least 56 credits by the end of the first year of registration
2. At least 152 credits by the end of the second year of registration
3. At least 290 credits by the end of the third year of registration
4. At least 440 credits by the end of the fourth year of registration
5. At least 620 credits by the end of the fifth year of registration
6. At least 800 credits by the end of the sixth year of registration
7. At least 960 credits by the end of the seventh year of registration

In addition to the above regulations, a student will only be allowed to repeat a particular module twice — failure to clear any module after the third registration of the particular module, will result in termination of studies.

ACADEMIC ADVANCEMENT AND PROGRESSION RULES

First Year to Second Year of Medicine	A student must have passed at least 124 credits of the prescribed First Year credits to be promoted to Second Year. If any of the failed modules is a prerequisite for a Second-Year module, the student cannot register for the affected Second Year module until the pre-requisite is passed. • A student who has passed at least 98 credits (but less than 124 credits) will not be promoted to Second Year, but will be allowed to take no more than 32 credits from Year 2 modules: 16 credits (equivalent to one full module) in Semester 1, and 16 credits (equivalent to one full module) in Semester 2, in addition to the failed Year 1 modules, provided that the required prerequisites are passed. • Students are responsible for selecting their modules within the framework of the UNAM timetable. • Students will not be allowed to register for more than one module in the same timetabled slot.
Second Year to Third Year of Medicine:	A student must have passed ALL the prescribed First Year modules (159 credits). In addition, the student must have passed at least 128 credits from the prescribed Second Year modules. If any of the failed modules is a prerequisite for a Third-Year module, the student cannot register for the affected Third Year module until the pre-requisite is passed. • A student who does not qualify for promotion to Year 3, but has passed at least 248 credits from both first- and second-year modules, will be allowed to take no more than 34 credits from Year 3 modules: 16 credits (equivalent to one full module) in Semester 1, and 18 credits (equivalent to one full module) in Semester 2, in addition to the failed modules. Such students will NOT be allowed to register for any clinical module of Year 3 • A student who fails more than four (4) modules CANNOT take any modules from Year 3. • Students are responsible for selecting their modules within the framework of the UNAM timetable. • Students will not be allowed to register for more than one module in the same timetabled slot.
Third Year to Fourth Year of Medicine:	A student must have passed ALL the prescribed first year and second year modules (325 credits in total). In addition, the student must have passed at least 152 credits of the prescribed Third Year credits. If any of the failed modules is a pre-requisite for a Fourth-Year module, the student cannot register for the affected Fourth Year module until the pre-requisite is passed. • A student who passed all first- and second-year modules, and at least 143 (but less than 152) credits from Third Year, will not progress to Year 4, but will be allowed to take any four (4) of the 8 credit modules of Year Four (block lecturer modules), provided that the required pre-requisites are passed. Alternatively, such students will be allowed to register for any two (2) of the 8 credit modules of Year four, as well as anyone (1) 18 credit clinical module, excluding any Surgery II modules, provided that the required pre-requisites are passed.

	• Students are responsible for selecting their modules within the framework of the UNAM timetable. • Students will not be allowed to register for more than one module in the same timetabled slot.
Fourth Year to Fifth Year of Medicine:	A student must have passed **ALL** the prescribed first year, second year, and third year modules (504 credits in total). In addition, **the student must have passed 13 out of the 14 prescribed Fourth Year modules (144 – credits if a 8 credit modules is not cleared or 134 credits if a 18 credit module is not cleared).** This means you are only allowed to carry one module to Fifth from Fourth year. **Note that COBES is a module that is credit bearing and will be counted as part of the modules/credits needed for advancement/progression.** Students who failed Surgery II, subspecialities: M3701SO Surgery II – Orthopedics and Trauma, M3701SR Surgery II – Urology; M3701SE Surgery II – E.N.T and M3701SP Surgery II – Ophthalmology please take note that each module bear its own credit and own module code, thus it is viewed as individual modules and not as one under the advancement/progression rule. If any of the failed modules is a pre-requisite for a Fourth-Year module, the student cannot register for the affected Fourth Year module until the pre-requisite is passed.
Fifth Year to Sixth Year of Medicine:	A student must have passed ALL the prescribed first year, second year, third year and fourth year modules (656 credits in total). In addition, **the student must have passed 7 out of the 8 prescribed Fifth Year modules (221– credits if an 18 credit module is not cleared, or 216 credits if a 20 credit module is not cleared, or 196 if a 40 credit module is not cleared).** This means you are only allowed to carry one module over to Sixth from Fifth year. **Note that Research Project and Elective are modules that are credit bearing will be counted as part of the modules/credits needed for advancement/progression.** If any of the failed modules is a pre-requisite for a Fourth-Year module, the student cannot register for the affected Sixth Year module until the pre-requisite is passed.

In addition to the above regulations, a student will only be allowed to repeat a particular module twice — failure to clear any module after the third registration of the particular module, will result in termination of studies.

REQUIREMENTS FOR QUALIFICATION AWARD: A student can graduate with the Bachelor of Medicine and Bachelor of Surgery degree upon successful completion of the prescribed 1092 credits in the curriculum and has met all other UNAM requirements. Following graduation, graduates will be required to successfully proceed into a two-year medical internship in Namibia or as per requirement of the relevant country.

Number of *Modules*/Credits to be Passed/Obtained at the Various Year Levels in order to be awarded the degree by the School

Year Level	Number of Passed *Modules* Required	Credit Equivalent
First year level	18 M*odules*	159 credits
Second year level	14 *Modules*	166 credits
Third year level	13 *Modules*	179 credits
Fourth year level	14 *Modules*	152 credits
Fifth year level	8 *Modules*	236 credits
Sixth year level	6 *Modules*	200 credits
	TOTAL	**1092 CREDITS**

First Year Level

At first year level, students take the University Core Curriculum modules and the required eleven (11) MBChB *modules* indicated below. The normal first year curriculum of a student registered in the Bachelor of Medicine and Bachelor of Surgery degree programme will therefore consist of eighteen (18) *Modules* (159 credits), compiled as follows:

Subject	*Modules*	Credits
University Core Curriculum	7*	24
MBChB at first year level	11	135
Total	**18**	**159**

Curriculum

Students take all modules below:				
Semester	**Code**	**Course Title**	**Prerequisite(Co-requisites) /**	**Compulsory (C)/Elective (E)**
SC	U3583DD	Digital Literacy		C
SC	U3583AL	Academic Literacy I A		C
SC	U3403FS	Skills Portfolio		C
SC	U3520LP	Leadership Skills		C
SC	U3420EM	Ethics and Morality		C
SC	U3420CN	National and Global Citizenship		C
SC	U3420SE	Sustainability and Environmental Awareness		C
S1	M3511BA	Embryology and Introduction to Anatomy		C
S1	M3501BF	Medical Physics		C
S1	P3511SO	Organic Chemistry		C
S1	M3511BP	Integrated Physiology and Pathophysiology I		C
S1	M3511HS	Sociology of Health and Disease		C
S2	M3512BB	Medical Biochemistry I	(P3511SO)	C
S2	M3512MP	Developmental Psychology		C
S2	M3512BS	Statistics for Health Sciences		C
S2	M3512BA	Systemic Anatomy I	(M3511BA)	C
S2	M3512BP	Integrated Physiology and Pathophysiology II	(M3511BP)	C
S2	M3502FE	Professional Ethics		C

Second Year Level

At second year level, students proceed with the University Core Curriculum modules and general MBChB modules. The normal second year level curriculum of a student registered in the Bachelor of Medicine and Bachelor of Surgery degree programme will therefore consist of fourteen (14) *Modules* (166 credits), compiled as follows:

Subject	*Modules*	Credits
University Core Curriculum	4*	24
MBChB at second year level	10	142
Total	**14**	**166**

Students take all modules below:				
Semester	**Code**	**Course Title**	**Prerequisite(Co-requisites) /**	**Compulsory (C)/Elective (E)**
SC	U3683AL	Academic Literacy I B		C
SC	H3513NM	Medical Anthropology		C
SC	U3520TH	Introduction to Critical Thinking		C
SC	U3420PJ	Project Management Skills		C
S1	M3611BB	Medical Biochemistry II	M3512BB	C
S1	M3611BP	Integrated Physiology and Pathophysiology III	M3511BP + M3512BP	C
S1	M3611BA	Systemic Anatomy II	M3511BA +M3512BA	C
S1	M3631TM	Medical Microbiology I		C
S1	M3601FM	Family Medicine I		C
S2	M3612TA	Anatomical Pathology	(M3611BA)	C
S2	M3612TM	Medical Microbiology II	(M3631TM)	C
S2	P3632CO	Pharmacology I	M3512BP	

S2	M3602TC	Chemical Pathology	M3611BB + M3611BP	C
S1/S2	M3683FC	COBES 1		C

Third Year Level

At third year level, students proceed with the general MBChB modules. The normal third year level curriculum of a student registered in the Bachelor Medicine and Bachelor of Surgery degree programme will therefore consist of twelve (12) *Modules* (179 credits), compiled as follows:

Subject	*Modules*	Credits
MBChB at third year level	12	179
Total	**12**	**179**

Students take all modules below:				
Semester	**Code**	**Course Title**	**Prerequisite(Co-requisites) /**	**Compulsory (C)/Elective (E)**
1	M3701TM	Clinical Microbiology	M3631TM and M3612TM	C
1	M3701FM	Family Medicine II	M3601FM	C
1	M3701TH	Haematology	M3611BP	C
1	P3751CO	Pharmacology II	P3632CO	C
1	M3711TE	Epidemiology	M3512BS	C
1/2	M3719FC	COBES II	M3683FC	C
2	M3712OG	Obstetrics and Gynaecology I	M3611BA and M3611BP	C
2	M3712IM	Internal Medicine I	M3611BA and M3611BP	C
2	M3712PA	Paediatrics I		C
2	M3712SU	Surgery I	M3611BB, M3611BA and M3611BP	C
2	P3752CO	Pharmacology III	(P3751CO)	C
0	M3713TR	Research Methods & Proposal Writing	M3512BS and U3583DD	C

Fourth Year Level

At fourth year level, students proceed with the general dental surgery modules. The normal fourth year level curriculum of a student registered in the Bachelor Medicine and Bachelor of Surgery degree programme will therefore consist of fourteen (14) *Modules* (152 credits), compiled as follows:

Subject	*Modules*	Credits
MBChB at fourth year level	14	152
Total	**14**	**152**

Students take all modules below:				
Semester	**Code**	**Course Title**	**Prerequisite(Co-requisites) /**	**Compulsory (C)/Elective (E)**
S1	M3701AN	Anaesthesiology I	M3611BA+M3751CO+ M3752CO	C
S1	M3701FH	Health Systems Management		C
S1	M3701SI	Medical Imaging and Diagnostics	M3501BF	C
S1	M3741FM	Family Medicine III	M3601FM+M3701FM	C
S1	M3701FN	Nutrition and Dietetics		C
S1	M3701MS	Psychiatry I	M3512MP	C
S1	M3701SO	Surgery II – Orthopaedics and Trauma	M3712SU	C
S1	M3701SR	Surgery II - Urology	M3712SU	
S1	M3701SE	Surgery II – E.N.T	M3712SU	
S1	M3701SP	Surgery II - Ophthalmology	M3712SU	
S0	M3713IM	Internal Medicine II	M3712IM	C
S0	M3713OG	Obstetric s & Gynaecology II	M3712OG	C
S0	M3713PA	Paediatrics II	M3712PA	C
S1/2	M3759FC	COBES III	M3601FM +M3701FN+ M3719FC	

Note: That students are to only repeat subspecialties (M3701SO Surgery II – Orthopaedics and Trauma, M3701SR Surgery II – Urology, M3701SE Surgery II – E.N.T and M3701SP Surgery II – Ophthalmology that they failed and not register for those subspecialties that they passed.

Fifth Year Level

At fourth year level, students proceed with the general dental surgery modules. The normal fifth year level curriculum of a student registered in the Bachelor Medicine and Bachelor of Surgery degree programme will therefore consist of eight (8) *Modules* (177 credits), compiled as follows:

Subject	*Modules*	Credits
MBChB at fourth year level	8	236
Total	**8**	**236**

Students take all modules below:				
Semester	**Code**	**Course Title**	**Prerequisite(Co-requisites) /**	**Compulsory (C)/Elective (E)**
S0	M3813AN	Anaesthesiology II	M3701AN	C
S0	M3813IM	Internal Medicine III	M3713IM	C
S0	M3813OG	Obstetrics and Gynaecology III	M3713OG	C
S0	M3813PA	Paediatrics III	M3713PA	C
S0	M3813MS	Psychiatry II	M3701MS	C
S0	M3813SU	Surgery III	**ANY three of the following:** M3701SO;M3701SR;M3701SEM3701SP	C
S0	M3813TR	Research Project	M3713TR	C
S2	M3812FL	Electives		C

Six Year Level

At fourth year level, students proceed with the general dental surgery modules. The normal sixth year level curriculum of a student registered in the Bachelor of Bachelor Medicine and Bachelor of Surgery degree programme will therefore consist of six (6) *Modules* (200 credits), compiled as follows:

Subject	*Modules*	Credits
MBChB at fourth year level	6	200
Total	**6**	**200**

Students take all modules below:				
Semester	**Code**	**Course Title**	**Prerequisite(Co-requisites) /**	**Compulsory (C)/Elective (E)**
S0	M3873IM	Internal Medicine IV	M3813IM	C
S0	M3873OG	Obstetrics and Gynaecology IV	M3813OG	C
SC	M3873PA	Paediatrics IV	M3813PA	C
S0	M3873MS	Psychiatry III	M3813MS	C
S0	M3873FM	Fam Meds IV	M3702FM	C
S0	M3873SU	Surgery IV	M3813SU	C

COURSE DESCRIPTORS

FIRST YEAR LEVEL

U3583DD Digital Literacy

Proposed NQF Level: 5 **Credits:**8 **Contact Hours:** Semester 0: 4 hours /2 week for semester 1 & 2 hours

Content: *Digital Proficiency:* ICT-based devices (laptops, tablets, smartphones, desktop computers, digital instruments and equipment); a mouse, keyboard, touch screen, voice control and other forms of input; screens, audio headsets and other forms of output; digital capture devices;

Digital Productivity: Basic productivity software (text editing, presentation, spreadsheets, image editing); email and other digital communication services; Internet or cloud or institutional shared spaces for Organising, managing and backing up digital files; software/apps and services suitable for learning-related tasks; digital tools fit learning and managing learning time

Information Literacy: search engines, indexes or tag clouds; wikis, blog posts, scholarly journals, e-books and the open web; file spaces and folders, bookmarks, reference management software and tagging; copyright, and digital citizenship issues

Data and Media Literacy: Digital data using spreadsheets and other media; data security and privacy; digital media messages – text, graphics, video, animation, audio and multimedia
Digital Creation and Innovation: digital materials (video, audio, stories, presentations, infographics); new digital tools for learning in digital settings
Digital Communication, Collaboration and Participation: digital communication; differences between media, norms of communicating in different spaces; false or damaging digital communications; collaborative tools and online environments; online networks.
Digital Learning and Development: digital learning opportunities; digital learning resources; digital tools/materials for organising, planning and reflecting on learning (mind-mapping, note-taking, e-portfolio/ learning journal/ blog)
Digital Identity and Wellbeing: online profiles for different networks (personal, professional, academic); digital reputation; managing personal data and privacy; digital CV or portfolio of work; digital technologies for personal development; online etiquette; wellbeing and safety online; internet addiction; cyberbullying and other damaging online behaviour

Assessment: Continuous assessment: 100%

U3583AL Academic Literacy I

Proposed NQF Level: 5 **Credits:**8 **Contact Hours:** Semester 0: 4 hours /2 week for semester 1 & 2 hours
Content: The module will cover study skills, reading, listening, speaking and writing, referencing, language usage and text organization.

Assessment: Continuous assessment: 100%

U3403FS Skills Portfolio

Proposed NQF Level: 0 **Credits:**0 **Contact Hours:**
Content: UNIT 1: Academic Planning and Goal Setting: Individual Needs and Values; Steps in Reaching a Personal Vision; Proactive Approach Towards Learning; Self-Regulated Learning; Personal and Academic Goal Setting; Receptiveness to Learning; Exploring Self- Development and Self- Awareness.
UNIT 2: Attitude and Motivation: Understanding Motivation; Personal Attitudes, Behaviours and Interests; Self-Reflective Process; Approaches to Dealing with Negative Factors; Class Attendance and Participation; Procrastination; Self-Reliance; Discipline; Accountability; Healthy Habits.
UNIT 3: Learning styles: Understanding Personal Approaches to Learning; Dynamics of The Learning Process; Learning Styles and Strategies.
UNIT 4: Study Methods and Skills: Study Habits and Strategies; Learning Styles and Techniques; Effective Study Methods and Skills; Note Taking; Memory and Reading Skills; Critical Thinking.
UNIT 5: Time Management: Effective Time Management; Planning; Decision-making; Prioritization; Setting Boundaries; Time for Self – care; Procrastination.
UNIT 6: Assessment Preparation: In class exercise; Test and Examination preparation; Organizing academic workload; Setting daily study goals; Staying physically active; Study groups.
UNIT 7: Mental well-being: Understanding mental health; Signs and indicators of poor mental health; commonly experienced mental health challenges; psychosocial stressors; Seeking professional help; Coping strategies.
UNIT 8: Interpersonal Communication: Effective Communication Skills; Verbal and Non-Verbal Communication; Listening Skills; Problem Solving; Assertiveness; Negotiation Skills; Practicing Empathy in Communication; Self-Confidence; Receptiveness to Feedback; Building Trust; Teamwork; Leadership; Public Speaking Skills.

Assessment: Continuous assessment: 100%

U3520LP Leadership Skills

Proposed NQF Level: 5 **Credits:**2 **Contact Hours:** 1 x 2h per week for 6 weeks
Content: Definition and scope of leadership; History and origins of leadership; Types of leadership; Leadership versus management skills; Leader (master of self, effective manager of people, active visionary); manager; Not all leaders are managers; Not all managers are leaders; Authority versus leadership; Power versus leadership; Principles of leadership (ability, adaptive, action, empowerment, creativity, problem solving, shared); Are leaders born or made? Characteristics of a good leader; Functions of leaders in organisations; Leading for the future; Mentoring skills; The 21st century leader; Ethical leadership skills; Responsible leadership skills.

Assessment: Continuous assessment: 100%

U3520LP Ethics and Morality

Proposed NQF Level: 4 **Credits:**2 **Contact Hours:** 2 hours per week – supplemented by online learning
Content: Ethical principles in perspective: Why is the principle of ethics necessary and significant? Ethics and the notion of ethical behaviour related to value systems in the organisational setting in the 21st century. Fundamental ethical principles: Meta-ethics implies the nature of ethics and moral reasoning. Discussions and reasoning around the role of for example self-interest are examples of meta-ethical discussions. Normative ethics guides the individual on how to determine the content of moral behaviour.

Applied Ethics are related to specific realms of human action and how to address challenges within those realms. Psychological Egoism is a metaethical theory of motivation and related to self-interest and forms part of the first stage of moral development. Ethical egoism is a normative theory that states that our actions ought to be done from the perspective of self-interest. The moral concept of virtue and constructive evaluation of "virtue" ethics related to virtues found in a particular society or culture. Moral responsibility comprises causality (cause and effect), knowledge (the facts, information and the skills acquired by the person through education or experience) and freedom (freedom of speech and acts). Applied ethics focusing on domain-specific areas for example science, health, business, education and engineering. Common ethical risks in personal life, studies and in the workplace that can lead to unethical behaviour.

Assessment: Continuous assessment: 100%

U3520LP National and Global Citizenship

Proposed NQF Level: 4 **Credits:**2 **Contact Hours:** Up to 1 contact lecture periods per week for 6 Weeks

Content: UNIT 1: Constitution and its Importance: What is a constitution; Functions of a constitution; What it contains; Constitution and democracy

UNIT 2: Global Citizenship: The meaning of global citizenship; Importance of global awareness; World issues of concern to global citizens.

UNIT 3: Civic Engagement: What do we mean by civic engagement; Dimensions of civic engagement; Indicators of civic engagement; Promoting civic engagement.

UNIT 4: Globalisation: Understanding globalisation; Cultural construction of neoliberal globalisation; Major players; Major domains; Major Issues; Futures of Globalisation

UNIT 5: Intercultural Communication: Dealing with difference; Levels of culture; Stereotypes and generalisations; Intercultural communication Processes

UNIT 6: Sustainable Development Goals and individual action: Introduction to SDGs; Contributing to achievement of SDGs through action

Assessment: Continuous assessment: 100%

U3420SE Sustainability and Environmental Awareness

Proposed NQF Level: 4 **Credits:**2 **Contact Hours:** 1 x 2h/6 weeks for the first 3 weeks followed by mini-project for the remainder of semester (total of 10 hours on this aspect)

Content: Sustainability: finite nature of elements constituting the Earthly environment, resilience and fragility of the natural environment; three distinct perspectives on sustainability: sustained yield of resources, sustained abundance and diversity of species and ecosystems, sustained economic and social development key themes in defining sustainability: (i) the human perspective, (ii) considerations of fairness and (ii) issues of scale concepts of inter- and intra-generational equity (fair and just distribution of resources), sustainable community. Natural resources: role of soil, water and minerals in supporting life on Earth; health and interdependence of ecosystems within the biosphere; dependence of human beings on natural resources for sustenance and livelihoods. Solutions to environmental sustainability challenges: simple inexpensive interventions aimed at reducing wastage of resources and generation of wastes through exhaustive use, reuse, recycling and refurbishing of products.

Assessment: Continuous assessment: 100%

M3511BA Embryology and Introduction to Anatomy

Proposed NQF Level: 5 **Credits:**14 **Contact Hours:** 3+4P hours

Content: The module provides building blocks to master the following topics i) man's place in the organismic kingdom. ii) basic embryological concepts. iii) an integrated approach to histological structure and function of the primary tissues in relation to the primary organ systems. iv) terminology and definitions in anatomy. The module includes an introduction to microscopy and methods in microscopy. The module furthermore introduces bioethics linked to the history of Anatomy and the Anatomy and Human Tissue Acts.

The module consists of four entities:

Introduction to anatomy including topics: The evolution, humans and their environment, history of anatomy, anatomical concepts, and terms. Introduction to all the major body systems

Cell biology, consisting of structure and function of cells and cell organelles and biological communication. Embryology, consisting of basic anatomy and physiology of reproduction, fertilisation, implantation, the placenta, and development of the embryo up to the trilaminar stage.

Introduction to human histology in reference to the organs systems; including histology of the basic tissues, namely epithelial tissue, connective tissues, muscle tissue and nervous tissue, and introduction to haematology and immunology.

Assessment: Continuous assessment 60% Examination 40%

M3501BF Medical Physics

Proposed NQF Level: 5 **Credits:**14 **Contact Hours:** 3+4P hours

Content: Units (standards, SI system, converting units, order of magnitude);Motion (displacement, velocity, acceleration, falling objects); Vectors (representation, adding, subtracting scalar product, vector product); Force (Newton's 1st, 2nd and 3rd laws, mass, weight); Equilibrium (statics, equilibrium, elasticity);Fluids (density, specific gravity, pressure, Pascal's principle, measurement, flow, Bernouli's principle, viscosity, surface tension, pumps); Waves (wave motion, types of waves, energy, amplitude and frequency, reflection and interference, resource, refraction and diffraction);Gas laws & temperature (atomic theory, temperature and thermometers, thermal expansion, thermal stress, diffusion);Electricity (charge, field, potential, currents, basic circuits);Magnetism (magnetic fields, electric currents, force, electric charge, Ampere and out Coulomb, Ampere's Law, torque); Electromagnetism (electromagnetic induction, transformers, transmission of power, production of electromagnetic waves, light and electromagnetic spectrum);Light (wave versus particles, diffraction, refraction, visible spectrum and dispersion); molecules and solids (bonding in molecules, weak bonds);Radioactivity (structure and properties of nucleus, binding energy and nuclear forces, radioactivity, alpha, beta, and gamma decay, half-life and rate of decay, radioactive dating).

Assessment: Continuous assessment 60% Examination 40%

P3511SO Organic Chemistry

Proposed NQF Level: 5 **Credits:**14 **Contact Hours:** 4+3P hours

Content: Review of valences, atomic and Molecular orbital theories. **Introduction to Organic Chemistry:** Functional groups, physical properties, intermolecular forces, acids and bases. **Molecular representation:** Shapes, resonance structures, alkanes, alkenes, alkynes, arenes, alcohols & phenols, carboxylic acids and derivatives. **Major organic molecules:** Proteins & nucleic acids, lipids carbohydrates, heterocyclic compounds and nomenclature. **Stereochemistry**: Classification, stereoisomers, enantiomers, diastereomers, optical activity R/S nomenclature. **Introduction to Organic reactions:** Reaction mechanism, electrophiles, nucleophile electrophilic addition reactions and nucleophilic substitution & eliminations of halo-alkanes.

Assessment: Continuous assessment 60% Examination 40

M3511BP Integrated Physiology and Pathophysiology I

Proposed NQF Level: 5 **Credits:**14 **Contact Hours:** 3+4P hours

Content: The module covers content on **General physiology and pathophysiology:** molecular interactions as integral to the generation; signalling and cellular dynamics and cellular adaptation and injury. Cellular and tissue compartmentation, and how information flows within a cellular and mass context. **Genetics:** gene expression; DNA structure and function. **Homeostasis:** internal environment; steady state; feedback mechanisms; disruptions of homeostasis**. Body fluid compartments:** extracellular, intracellular compartments; water distribution in the body; blood volume; tonicity; osmotic equilibrium; regulation of thirst; fluid movement between compartments; alterations in fluids and electrolytes. **Energy and cellular metabolism:** energy utilisation; laws of thermodynamics; metabolic reactions and enzymatic reactions. **Endocrine physiology and disorders:** the endocrine system and its collaboration with the nervous system; hormone regulation; hormone structure and function; disorders of endocrine function. **Neurophysiology:** general principles of neurophysiology; principles of excitable tissues (neurons, skeletal & smooth muscles); action potentials; contraction and excitation coupling; Guillain Barré syndrome; myasthenia gravis and rigor mortis.

Assessment: Continuous assessment 50% Examination 50%

M3511HS Sociology of Health and Disease

Proposed NQF Level: 5 **Credits:**14 **Contact Hours:** 3+4P hours

Content: Describe the sociological definition of health, illness and disease by considering the structural and social factors of health and disease. The **structural emphasis** entails the political, economic and social cultural elements that foster ill/ health, as well as the forces that allows/ constrain individuals' responses to illness and the healthcare system. **Examine the indirect pathway** between sociology and health/disease. **Explore key theoretical perspectives** in health, health behaviour and sociology. **Examine how social determinants** of health/disease (such as class, gender, addiction, gender-based violence, cultural beliefs and practices) contribute to the distribution and spread of diseases within different population groups. **Assess the role and objectives** of health promotion, community/public health services and alternative medicine in the prevention, spread and treatment of diseases. **Explain how societal attitudes** and **individual health-seeking** behaviour influence health. **Explore medicine** as an institution of social control to ensure adherence to social norms, specifically, by using medical means to minimise, eliminate, or normalise unhealthy behaviour. **Analyse and describe the patient-healthcare** provider relationship in relation to illness behaviour. **Evaluate the effectiveness** of placebos in the context of managing chronic diseases (i.e., HIV/AIDS, cancer, obesity and coronary heart disease). **Identify the challenges** with measuring health status and quality of the life of patients.

Assessment: Continuous assessment 40% Examination 60%

M3512BB Medical Biochemistry I

Proposed NQF Level: 5 **Credits:**14 **Contact Hours:** 3+4P hours

Content: The module will cover the following topics: Cell biology; Introduction to Medical Biochemistry and its relationship to cell biology; Cellular diversity, function and compartmentalisation; The cell cycle. Protein structure and function; Structure and properties of amino acids, peptides and proteins; Peptides and Protein function (glutathione, globular proteins and fibrous proteins); Protein purification and separation methods/techniques. Enzymes; Enzyme properties and mechanism of action; Enzyme kinetics, inhibition and regulation; Diagnostic and therapeutic uses of enzymes. Lipid chemistry and lipoproteins; Definition, Structure and biomedical importance of various lipids and complex lipids; Steroids and Prostaglandins; Structure and function of lipoproteins. Chemistry of vitamins and minerals; Chemistry of vitamins, minerals and dietary sources; Role of vitamins in metabolism, growth and development (implication of vitamin deficiency); Role of minerals in metabolism, growth and development (implication of minerals deficiency). Carbohydrate chemistry; Structure and function of carbohydrates; Carbohydrates in living systems; Glycoconjugates. Signalling Pathways; Signalling molecules and modes of cell signalling; G-protein coupled receptors and G-protein signalling; Second messengers, signal transduction and disease. Nucleic acid chemistry and genetic information transfer; Nucleic acid structure and properties; DNA organisation, synthesis and repair; RNA synthesis – Transcription. Protein synthesis; Protein synthesis – Translation; Post-translational processes; Regulation of gene expression. Introductory medical genetics; Mechanisms of genetic variation; Mendelian inheritance; Introductory cytogenetics, genetics and disease. Recombinant DNA technology; Principles of DNA isolation and cloning; Principles of DNA amplification and sequencing; Principles of hybridization and microarrays. Introduction to bioinformatics; Principles of bioinformatics and biologic databases; Assessing pairwise sequence similarity; Introduction to phylogenetics.

Assessment: Continuous assessment 40% Examination 60%

M3512MP Developmental Psychology

Proposed NQF Level: 5 **Credits:**12 **Contact Hours:** 4 hours

Content: This module focuses on applicable developmental theories such as the psychodynamic theory, particularly Freud's psychosexual theory and Erickson's psychosocial theory and developmental theories of cognitive development. To be considered here are Piaget's theory of cognitive development as well as Vygotsky's theory of cognitive development (sociocultural-historical theory, particularly the notions of the zone of proximal development and scaffolding in cognitive development). The course will examine perinatal/prenatal development, including the period from conception to birth. Environmental influences on prenatal development, hereditary/genetic influences on human development and hereditary/genetic transmission, genetic and chromosomal abnormalities, birth complications, and maternal stress will be explored. How infants' sense and perceive the world will be examined. Furthermore, the course will examine the five domains of human development from infancy, adolescence, through adulthood (cognitive development, physical development, emotional development, social development and language development (attainment of normal developmental milestones)). Finally, chronic illness in childhood and hospitalization, as well as child physical, emotional, and sexual abuse will be covered. The development of the concept of death among children will also be discussed.

Assessment: Continuous assessment 40% Examination 60%

M3512BS Statistics for Health Sciences

Proposed NQF Level: 5 **Credits:**12 **Contact Hours:** 4 hours

Content: ***Describing Univariate Data:*** Central Tendency, Spread, shape and graphs. ***Describing Bivariate Data:*** Scatterplots and Correlation. ***Introduction to Probability (elementary):*** Simple probability, Conditional probability, Probability of A and B, Probability of A or B. ***Normal Distribution***: Standard normal distribution, Converting to percentiles and back, and area under portions of the curve. *Sampling Distributions:* Sampling distribution of the mean, Standard error, Central limit theorem, Difference between means, Proportion, Difference between proportions. ***Confidence Intervals***: Overview, Mean, σ known, Mean, σ estimated, General formula. Difference between means of independent groups, σ known, Difference between means of independent groups, σ estimated, Pearson's correlation, Difference between correlations. ***The Logic of Hypothesis Testing:*** Ruling out chance as an explanation, The null hypothesis, Steps in hypothesis testing and conclusion, The precise meaning of the p value, Statistical and practical significance, Type I and II errors, One- and two-tailed tests, Confidence intervals and hypothesis testing following a non-significant finding. ***Testing Hypotheses with Standard Errors:*** General formula Tests of μ, σ known, Tests of μ σ estimated, $\mu_1 - \mu_2$, independent groups, σ estimated, $\mu_1 - \mu_2$, dependent means, σ estimated. ***Chi square*:** Test for independence and goodness-of-fit and equality of proportion. ***Power:*** Factors affecting power, Size of difference between means, Significance level, Sample size, Variance.

Assessment: Continuous assessment 40% Examination 60%

M3512BA Systemic Anatomy I

Proposed NQF Level: 5 **Credits:**14 **Contact Hours:** 3+4P hours

Content: This module addresses the regional anatomy, topographical anatomy, organ development and histology of the neurological and musculo-skeletal systems; with dissections, microscopy, and practical sessions of each system that is clinically orientated. It also exposes students to examples of the applications of the anatomical knowledge in clinical cases and clinical examination techniques mastered in skills laboratory.

Assessment: Continuous assessment 60% Examination 40%

M3512BP Integrated Physiology and Pathophysiology II

Proposed NQF Level: 5 **Credits:**14 **Contact Hours:** 3+4P hours

Content: The module covers content on **autonomic nervous system**: sympathetic and parasympathetic systems; autonomic and synaptic transmission; autonomic reflex centers, adrenal medulla; gastroparesis and pure autonomic failure. **Sensory physiology:** sensory coding; sensory receptors; somatic sensations; sensory perception, ascending neural pathways; referred pain; mechanisms of pain relief and pathophysiology of headaches. **Special senses:** vision; hearing; balance; smell and taste. **Higher brain function:** limbic system; reward and punishment centers; biological rhythms; consciousness; learning and memory; hippocampus; language and speech; cerebral hemispheres; electroencephalography; Alzheimers; amnesia; Wernicke's aphasia; Broca's aphasia; stroke and seizure disorders. **Motor system:** reflexes and voluntary movements; motor functions of the spinal cord; proprioceptors; control of skeletal muscles; alpha-gamma coactivation; muscle tone and fatigue; reciprocal innovation; upper and lower motor neurons; pyramidal and extrapyramidal tracts; brainstem; cerebellum, thalamus and basal ganglia; decerebrate and decorticate rigidity; Parkinsons disease; spinal shock. **Blood and immunity**: composition and function of blood; anaemia and polycythaemia; haemostasis; haemophilia; ABO blood group system; Erythroblastosis faetalis; immune system; leukaemia; alloimmune disease.

Assessment: Continuous assessment 50% Examination 50%

M3502FE Professional Ethics

Proposed NQF Level: 5 **Credits:**7 **Contact Hours:** 2 hours

Content: This module addresses the regional anatomy, topographical anatomy, organ development and histology of the neurological and musculo-skeletal systems; with dissections, microscopy, and practical sessions of each system that is clinically orientated. It also exposes students to examples of the applications of the anatomical knowledge in clinical cases and clinical examination techniques mastered in skills laboratory.

Assessment: Continuous assessment 60% Examination 40%

SECOND YEAR LEVEL

U3683LA Academic Literacy II

Proposed NQF Level: 5 **Credits:**8 **Contact Hours:** Semester 0: 4 hours/week; Semester 2: 2 hours/week

Content: The module is designed for students enrolled in a bachelor's degree, which requires them to do basic research, read and listen to specific academic material, produce specific written texts and give academic presentations. The module thus, focuses on enhancing academic reading, academic vocabulary, writing, listening and speaking

Assessment: Continuous assessment: 100%

H3513NM Medical Anthropology

Proposed NQF Level: 5 **Credits:** 12 **Contact Hours:** 4hrs/week

Content: This module represents a first exposure to Medical Anthropology, local understanding of medical systems and beliefs in understanding the different cultures; acquiring the most basic knowledge and skills of various cultural interpretations of health and illness which will enable them to become more tolerant and better understanding different health systems and beliefs.

Assessment: Continuous assessment 100%

U3520TH Introduction to Critical Thinking

Proposed NQF Level: 5 **Credits:**2 **Contact Hours:** 1-hour practical session per week

Content: The module will cover: Definition of critical thinking: striving for understanding; to have an inquisitive yet open-minded and flexible approach to exploring ideas, the ability to evaluate information and draw clear conclusions based on the evidence at hand. Core critical thinking skills: explain, infer, analyse, evaluate, problem solving, self-reflect. Deductive and inductive reasoning: inductive reasoning- move from the specific to the general, deductive reasoning-moving from the general to specific. Construction of argument: construct statements that combine reasoning with evidence to support an assertion or argument. Problem analysis: define problem, determine the root causes of problem, develop alternative solutions to problem, implement solution, evaluate outcome. Reflective learning: asking open questions, reflecting on answers, writing reflective learning essays, thinking about other

answers, asking 'why' questions. Understanding fallacies: what is a fallacy? Description of various fallacies, identifying a fallacy in an argument, explaining a fallacy to an opponent in an argument.

Assessment: Continuous assessment 100%

U3420PJ Project Management Skills

Proposed NQF Level: 5 **Credits:** 2 **Contact Hours:** 2 hour lecture per week for the first two week and field-based practical for the remaining four weeks

Content: This module consists of two components: The first component is a two week theory covering the concepts (project vs programme) and the phases of project life cycle (project initiation and planning: work breakdown, development of SMART indicators, estimation of activity duration, efforts, and costs, scheduling of activities, identification of critical path, setting of milestones, stakeholder identification and categorization, stakeholder engagement, initial risk identification, and development of the initial project plan; project implementation & management: forming the project team, managing people, resources allocation, responsibilities allocation, quality assurance, leadership style and project liaison; project monitoring and control: progress reporting and communication, quality control, time management, budget and cost management, risk management and mitigation; project closure and evaluation: project evaluation, project auditing process and the closure process, and final project report). The second component is a four-week field-based practical where students participate in a real-life project in their immediate environment. Students are strictly required to apply the project management approach during the field-based practical.

Assessment: Continuous assessment 100%

M3611BB Medical Biochemistry II

Proposed NQF Level: 5 **Credits:**16 **Contact Hours:** 3+4P hours

Content: This module covers the following topics: Principles of bioenergetics; Principles of bioenergetics. Oxidative metabolism; Cellular redox systems; Mitochondrial electron transport system; Inhibitors and regulation of oxidative metabolism; Mitochondrial dysfunction and disease. Carbohydrate metabolism and the TCA cycle; Glycolysis; Gluconeogenesis; Tricarboxylic Acid cycle; Metabolism of non-glucose sugars; Pentose phosphate pathway; Metabolism of glycogen. Lipid metabolism; Oxidation of fatty acids in the liver and extrahepatic tissues; Ketogenesis and impaired oxidation of fatty acids; Biosynthesis and storage of fatty acids; Eicosanoids and health; Disorders of lipoprotein metabolism. Metabolism of proteins and amino acid nitrogen; Amino acid degradation and the urea cycle; Amino acid degradation and the urea cycle; Inborn errors of metabolism. Principles of metabolic regulation and biochemical basis of cancer; Principles of metabolic regulation; Integration of metabolism; Biochemical basis of cancer. Control of food intake and regulation of energy balance; Food intake control mechanisms; Energy balance regulation; Kwashiorkor and marasmus. Steroid and bile metabolism; Cholesterol synthesis and transport; Bile acid biosynthesis; Steroid hormones and CYP enzymes. Nutrition in health and disease; Overview of nutrition in health and disease; Nutrigenetics and nutrigenomics; Nutrition in metabolic and cardiovascular disease and their prevention. Xenobiotic metabolism; Xenobiotics, sites of metabolism and the process of biotransformation; Cytochrome P450 (CYP) enzymes in biotransformation; Clinical correlations in xenobiotic metabolism.

Assessment: Continuous assessment 60%; Examination 40%

M3611BP Physiology and Pathophysiology III

Proposed NQF Level: 6 **Credits:**16 **Contact Hours:** 3+4P

Content: The body systems to be covered in this module will include: **Respiratory system:** conducting and respiratory zones; gas laws; lung mechanics; muscles of breathing; pleural membrane; pulmonary ventilation; alveolar ventilation; alveolar dead space; lung compliance; pulmonary function tests; gaseous exchange; gas transport; control of respiration; pulmonary embolism; pneumonia; restrictive and obstructive lung diseases. **Cardiovascular system:** principles of haemodynamics; neural control of circulation; atherosclerosis; hypertension; structure and function of the heart; cardiomyopathy; endocarditis and heart failure. **Gastrointestinal system:** general principles of gastrointestinal function; innervation and blood supply of gastrointestinal system; secretory function; motility; metabolic functions of the liver and gall bladder; gastro-oesophageal reflux; gastritis; peptic ulcer disease; inflammatory bowel syndrome; diarrhoea; vomiting; hepatitis; jaundice; cirrhosis; liver failure; hepatic encephalopathy. **Renal system:** renal structure and function; renal circulation; glomerular filtration; tubular reabsorption and secretion; clearance; fluid and acid-base balance; micturition; renal function tests; dialysis. along with their associated pathophysiology. **Reproductive system:** principles of human reproduction; hypothalamic-pituitary-gonadal axis; puberty; male sexual development; female sexual development; pregnancy; menopause and andropause.

Assessment: Continuous assessment 50%; Examination 50%

M3611BA Systemic Anatomy II

Proposed NQF Level: 6 **Credits:**16 **Contact Hours:** 3+4P

Content: This module addresses the regional anatomy, topographical anatomy, organ development and histology of the respiratory, gastro-intestinal, and urogenital systems through dissections, microscopy, and practical sessions of each system that

is clinically orientated. It also exposes students to examples of the applications of the anatomical knowledge in clinical cases and clinical examination techniques mastered in skills laboratory.

Assessment: Continuous assessment 60%; Examination 40%

M3631TM Medical Microbiology I

Proposed NQF Level: 6 **Credits:**16 **Contact Hours:** 3 + 4P

Content: This module will cover: Bacterial cell nomenclature; morphology; body plan and components; structure and gram nature; Bacterial Processes cell growth; nutrition and metabolism; biofilms; Bacterial virulence regulation of virulence; pathogenicity and pathophysiological changes resulting from bacterial infections Bacterial Genetics: variation and inheritance; mutations and repair; Genetic exchange and Recombination. Normal Microbial flora Origins; Factors; Flora at different sites; Beneficial effects of flora Immunology: Basic concepts in immunology; components of the immune system; principles of innate and adaptive immunity; antigen recognition by B and T cells; development; maturation and survival of lymphocytes; adaptive Immunity to infection; failures of Host defence Mechanisms; (tolerance; allergy and hypersensitivity; autoimmunity; immunodeficiency; immunosuppression); tissue transplant; immune-surveillance; tumour immunity; transplant immunology; immunotherapy and immunisation. Spread and Control of Infection Sterilisation and Disinfection; Mechanisms of action of major classes of antimicrobial agents; drug resistance; multidrug resistant organisms and the physical and chemical prevention and control methods.

Assessment: Continuous assessment 40%; Examination 60%

M3601FM Family Medicine I

Proposed NQF Level: 6 **Credits:**8 **Contact Hours:** 2 + 2P hours

Content: The module covers the following topics: Definitions of Family Medicine, Primary Health Care and Public Health and how they overlap; Primary Health Care – origins, different approaches and challenges; Disease Prevention and Health promotion – definitions, approaches and behaviour change theories, principles of disease prevention and social determinants of ill health; Communicable and Non-communicable diseases and screening for preventable conditions; Brief behaviour change counselling and how to communicate health information; Community oriented primary care (COPC) and how to apply the principles of COPC; Family- oriented primary care and how to utilise different tools to assess family function e.g. genograms, ecomaps and family APGAR as well as conducting a home visit and family conference.

Assessment: Continuous assessment 60%; Examination 40%

M3612TA Anatomical Pathology

Proposed NQF Level: 6 **Credits:**16 **Contact Hours:** 3 + 4P

Content: Pathology (also commonly referred to as laboratory medicine) comprises those services which provide knowledge and diagnostic information for the care of individual patients through the scientific analysis of specimens of blood, fluids, tissues and other samples. Pathology services constitute an essential element of clinical services through the contribution they make to the effective prevention, detection, diagnosis, treatment and management of disease, especially chronic disease. This curriculum in pathology is organised in three modules: histopathology, chemical pathology and haematology.

Assessment: Continuous assessment 40%; Examination 60%

M3612TM Medical Microbiology II

Proposed NQF Level: 6 **Credits:**16 **Contact Hours:** 3+4P hours

Content: Parasitology Overview of parasite; host; parasitism; parasitic diseases prevalent in Namibia and world; Classification; geographical distribution; habitat; morphology; life cycle; pathogenicity (mode of infection, pathogenesis and pathology); immune response to parasitic invasion and escape mechanism and laboratory diagnosis and prevention and control of medically important protozoa and helminths: *Entamoeba histolytica; Giardia lamblia; Trichomonas*; Ascaris; Ancyclostoma and Necator; *Enterobius vermicularis*; *Trichuris trichiura*; Strongloides; Taenia; Echinococcus; *Hymenolepsis nana*; Brugia; Loaloa; Onchocerca; Dracunculosus; Plasmodium; Leishmania; African and South American trypanosomiasis; Toxoplasma; Wucheria and; **Medical entomology** (insects and arachnids) **; Mycology**; Classification, general structure; physiology; pathogenesis; diagnosis treatment; prevention and control of medical important fungi; superficial mycosis; deep or systemic mycoses; opportunistic mycoses; fungal toxin and Allergies fungal drugs. **Virology**; History and principles of virology; Taxonomy and replication strategies of various viruses and Bacteriophages; Classification; structure; medical importance; pathogenesis and laboratory diagnosis of Poxviruses; Herpes viruses; Adenoviruses; Picornavirus; Orthomyxovirus; Paramyxovirus; Arbovirus; Rhabdo viruses; Hepatitis viruses; Retrovirus (HIV; HTLV etc); emerging viruses (SARS;MERS); Oncogenic virus; prions; Antiviral drugs; Technique of Diagnostic virology: Cultivation and purification of viruses.Principle and application of serodiagnostic methods-hemagglutination and haemagglutination inhibition tests; Complement fixation; neutralisation.

Assessment: Continuous assessment 40%; Examination 60%

P3632CO Pharmacology I

Proposed NQF Level: 6 **Credits:**16 **Contact Hours:** 4L + 3P + 1T

Content: Pharmacodynamics: Mechanisms and equations of drug receptor interactions; nature and types of drug dose response curves; pharmacodynamic terms describing drug dose effectiveness and safety; agonist and antagonist drug dose response curves and spare receptor theory; drug receptor families, cellular signal transduction pathways and second messengers; drug formulations and routes of drug administration; drug transport process, drug absorption, distribution and elimination; drug extraction ratio and clearance; effects of organ perfusion, protein binding and enzymatic activity on rates of drug elimination; pharmacokinetic compartment models. **Pharmacokinetics:** pharmacokinetic parameters – their definitions and implications in drug therapy; drug plasma concentration time curves; pharmacokinetic models and equations and the use of semi-logarithmic graphs for determining pharmacokinetic parameters; drug metabolism and drug metabolising enzymes; enzyme induction and inhibition; Fundamental principles of drug interactions

Assessment: Continuous assessment 50%; Examination 50%

M3602TC Chemical Pathology

Proposed NQF Level: 6 **Credits:**8 **Contact Hours:** 2 + 2P

Content: Through this module students will learn about the biochemical and metabolic basis of disease, and the mechanisms involved in restoration and maintenance of normal state. Students will also learn about the approaches to clinical reasoning guiding the choice of laboratory tests, interpretation of results of tests, decision making therefrom, the analytical methods themselves and their limitations.

Assessment: Continuous assessment 40%; Examination 60%

M3683FC Community Based Education and Service I (COBES I)

Proposed NQF Level: 6 **Credits:**14 **Contact Hours:** 5 hours of integrated learning and Household attachment

Content: Teaching of basic clinical skills will facilitate the immersion of the student into the clinic setting. Following principles of patient safety, original teaching and performance of skills will occur in the skills laboratory setting under supervision. Eventually with exposure to the clinics and health centre at the primary care level, the student will participate in aspects of basic service delivery to patients. The learning will be re-enforced by assessment through observation of skills and assignments related to the patient's illness in the context of the family and community.

Assessment: Continuous assessment 100%

THIRD YEAR LEVEL

M3701TM Clinical Microbiology

Proposed NQF Level: 7 **Credits:** 9 **Contact Hours:** 2+2P hours

Content: Organ-system approach will be use; Musculoskeletal system infections (osteomyelitis, septic arthritis, pyomyositis etc.); Respiratory system infections(pharyngitis, tonsillitis, Tuberculosis, pneumonia, empyema etc); cardiovascular systems(Septicemia, Rheumatic fever, infective endocarditis etc.) ; gastrointestinal system and the biliary system infections(Peptic ulcer disease, secretive & Inflammatory diarrhoeas, dysentery etc.) ; Urogenital system(UTI, STDs & STI): Central nervous system infections(Meningitis, encephalitis etc.); Skin conditions (Carbuncles, folliculitis, Tineas,etc), HIV and opportunistic infections, Hospital acquired infections and infection control and prevention. The entire topics will be taught under sub-titles of epidemiology, transmission, natural history of the common infections; pathogenesis and clinical manifestations; diagnosis; treatment; prevention and control.

Assessment: Continuous assessment 40%; Examination 60%

M3701FM Family Medicine II

Proposed NQF Level: 7 **Credits:**9 **Contact Hours:** 2 + 2P hours

Content: The module covers the following topics; the principles of Family Medicine; the bio-psychosocial approach and the use of the three-stage assessment; patient-centeredness and the dynamics of the consultation; brief behaviour change counselling, palliative medicine, family medicine ethics, family oriented primary care, evidence-based health care and stress and burnout in health care professionals.

Assessment: Continuous assessment 40%; Examination 60%

M3701TH Haematology

Proposed NQF Level: 7 **Credits:**9 **Contact Hours:** 2 + 2P hours

Content: The module provides comprehensive knowledge on the developmental process of all three hematopoietic cell lines of erythropoiesis, thrombopoiesis, lymphocyte and leukocyte maturation and differentiation; understanding the role growth factors in hematopoiesis and cytokines in hematopoietic proliferation differentiation and maturation; morphology (indication and interpretation of stains used in the peripheral blood smear; normal cellular morphology and composition of peripheral blood; qualitative and quantitative abnormalities of erythrocytes, platelets and white cells); haematological malignancies (leukaemia, polycythaemia vera, myelofibrosis, thrombocythemia); haemostasis and thrombosis (comprehensive knowledge of function of the various components of haemostasis; diagnosis of various congenital bleeding disorders); blood transfusion (genetics and biochemistry of major blood cell antigens such as ABO, Rhesus, HLA; principles of pretransfusion testing such as basic blood grouping, procedures for compatibility testing, principles of cross match strategies, and principles of antibodies identification); specialised haematology diagnostic modalities (to acquire comprehensive knowledge of the commonly used diagnostic panels such as acute leukaemia screen, chronic screen, plasma screen, CD34 analysis, Platelet marker analysis).

Assessment: Continuous assessment 40%; Examination 60%

P3751CO Pharmacology II

Proposed NQF Level: 7 **Credits:**16 **Contact Hours:** 2 + 2P hours

Content: The module aims at introducing students very early in the medical programme to drug therapy in both systemic and infectious diseases. A teaching strategy that gives preference to making students understand pharmacologic principles as a first step in drug therapy will be adapted. Course outlines principally focus on the pharmacological basis of drug therapy in disorders of the autonomic and somatic nervous system and renal control of the cardiovascular system as well as the chemotherapy of bacterial infections. Much emphasis will be paid on the development of students' ability to evaluate the therapeutic actions of drugs to be discussed from the perspectives of their mechanisms of action and pharmacological properties. Mechanisms of action, activity limitations posed by bacterial morphological characteristics, spectra of antibacterial activities, adverse effects, compatibilities and clinical applications of antibacterial agents will similarly be the focus in presentations dealing with chemotherapy of infectious diseases.

Assessment: Continuous assessment 50%; Examination 50%

M3711TE Epidemiology

Proposed NQF Level: 7 **Credits:**16 **Contact Hours:** 3 + 1P hours

Content: This module covers the following topics: history of epidemiology, definition, functions, and characteristics of epidemiology, Definition, functions, and characteristics of epidemiology, routine data sources and descriptive epidemiology and analytic epidemiology; epidemiological triad, natural history of disease, exposure and outcome, incubation period and disease spread; determinants of health, epidemiology applied to specific areas (social epidemiology, infectious disease epidemiology, epidemiology of HIV/AIDS, Environmental epidemiology, occupational epidemiology, psychiatric epidemiology, etc.); population health, disease burden and its indicators: incidence, prevalence, measures of morbidity and mortality - morbidity rate, mortality rate, fertility rate, survival rate, life expectancy, proportion, ratio, rate, Measuring of Disease and Exposure; Comparison of health problem between different populations: Standardisation of rates and ratio; Association and causality, Relating risk factors to health outcome; Analytic study designs; Causal inference; Sources of error; Multicausality — Confounding; Outbreak investigation; prevention strategies, diagnostics tests and screening: Sensitivity and specificity, Predictive value, Likelihood ratio (LR), Predictive value and prevalence, Stability of the sensitivity and specificity, Clinical case definition, measures of agreement.

Assessment: Continuous assessment 50%; Examination 50%

M3719FC Community Based Education and Service II (COBES II)

Proposed NQF Level: 7 **Credits:**16 **Contact Hours:** 4 weeks integrated learning

Content: The purpose of this module is to: prepare the student to practice in rural setting in Namibia. This module builds on COBES1 experience in the urban clinic setting. This exposure continues to integrate core principles of community medicine and family medicine, which have been addressed in previous modules of COBES and Family Medicine, through a one-month placement at a rural hospital. Clinical experience will be acquired under supervision and with feedback: Clinical assessment of patients, basic nursing skills, clinical procedures and counselling patients on risky lifestyle behaviours. Proof of clinical learning is submitted in the students e-portfolio. Again, principles of family medicine and community orientated primary care (COPC) will shape how students internalize the illness of the individual patient in the spectrum of the family and community. This will include involvement in a family visit case, and a health promotion project. The experience gained will help the students to identify resources in the household and leverage this for health in support of health promotion, prevention, control, treatment and rehabilitation.

This module provides immersion of the student into district/ rural hospitals in Namibia. The student will participate in all aspects of service delivery at the hospital and outreach in the clinic. The learning will be re-enforced by assessment through observation of skills and assignments related to the patient illness in the context of the family and community, which include: Family Visit, Chronic Illness Audits, Patient Adherence Questionnaires and a Health Promotion project.

Assessment: Continuous assessment 100%

M3712OG Obstetrics and Gynaecology I

Proposed NQF Level: 7 **Credits:**18 **Contact Hours:** 2 + 20P hours over 4 weeks

Content: Students will be able to evaluate normal and suspect high risk or abnormal pregnancy, carry out selected diagnostic investigations, develop an intervention plan, observe practical and surgical interventions as an assistant to clinical faculty members, prepare patient records, present findings to clinical faculty members, and make proper referrals of patients.

Topics to be covered include : Conception, pregnancy & the management of normal pregnancy; high-risk pregnancy; abnormal pregnancy; medical conditions and HIV in pregnancy; normal and abnormal labour; use of partograph for monitoring labour; operative vaginal delivery; patho-physiology of high risk and abnormal pregnancy; obstetric operations, e.g. caesarean section; ethical issues in obstetrics, all with specific reference to practicing in Namibia; Miscellaneous medical disorders: Haematological problems in pregnancy; Renal disease, Diabetes and endocrine disease; Heart disease; hypertensive disorders; malpresentation; malposition; cephalopelvic disproportion; obstetric procedures: induction and augmentation of labour; prolonged pregnancy; preterm labour; multiple pregnancy; disorders of foetal growth and assessment of foetal well-being; obstetric emergencies: APH,PPH, cord prolapse, etc.; neonatal care for obstetricians; puerperium and lactation; analgesia and anaesthesia for obstetrics; foetal monitoring during labour; antenatal care; pre-conception counselling; Normal foetal growth; the placenta and foetal membranes; prenatal diagnosis and genetics

Assessment: Continuous assessment 40%; Examination 60%

M3712IM Internal Medicine I

Proposed NQF Level: 7 **Credits:**18 **Contact Hours:** 2 + 20P hours over 4 weeks

Content: Clinical presentations in each of the major systems; Electrocardiography (ECG): basics of ECG theory and practice, Clinical methods: Principle of history taking, general and systemic examination, Basic procedure skills: ECG recording, lumbar puncture, emergency chest decompression, urinary catheterization, basic life support and cardio-pulmonary resuscitation.

Assessment: Continuous assessment 40%; Examination 60%

M3712PA Paediatrics I

Proposed NQF Level: 7 **Credits:**18 **Contact Hours:** 2 + 20P hours over 4 weeks

Content: This module aims at equipping the students with knowledge and skills to recognize normal child growth and development, identify abnormalities in growth and development, and to learn how the child relates to their family and the community. Also, the module will enable the students to implement public health interventions such as immunisation schedules, child health and nutrition. Furthermore, the student will gain mastery in history taking, examination requesting diagnostics' tests and diagnosis of common childhood illnesses including neonatology and paediatric oncology.

Develop understanding of the sick child, abnormalities in growth and development, and how the child relates to their family and the community. This will include studying many different diseases in the paediatric setting. Also learn the principles of how to provide emergency support in the paediatric setting. Interaction with aspects of obstetric care will be arranged to enable an understanding of how maternal health and delivery of the baby impacts on neonatal health.

Students will attend the paediatric wards and clerk patients, to develop an understanding of the normal and sick child, identify abnormalities in growth and development, and to learn how the child relates to their family and the community. The emphasis will be laid on clinical history and examination, making a correct diagnosis and formulating a management plan for the common childhood illnesses. They will learn the principles of administering first aid during medical emergencies, make effective referral and follow-up of a baby or child who requires life-saving care. The course will be facilitated through the following learning activities: lectures, tutorials, case presentations, and bedside teaching during ward attachments. We expect all the students to attend (100%) the paediatric clinical rotation

Assessment: Continuous assessment 40%; Examination 60%

M3712SU Surgery I

Proposed NQF Level: 7 **Credits:**18 **Contact Hours:** 2 + 20P hours over 4 weeks

Content: The course will concentrate on the core general surgery content areas including with emphasis is on eliciting clinical signs and symptoms; history of surgery; ethics, confidentiality, Supportive care; history taking and physical examination in cases of pain, lump, ulcer, sinus, fistula; principles of Disinfection and Sterilisation; Wounds, Wound healing and complications; Infections of Surgical importance, specifically, microbial infections in surgery, Mycotic infections of surgical importance, Infections by Nematodes and Trematodes; HIV/AIDS and a surgical patient; Skin and Subcutaneous tissues specifically Ulcers, sinuses, fistulae, Mole and melanoma, papilloma and wart, carcinoma, lipoma, fibroma, lymph node, cyst, bursa, etc.; Principles of fluid and electrolyte therapy & Acid Base Disturbance; Introduction to the Management of Multiple injured patient. Penetrating and non-penetrating injury; Shock; Use of blood & blood products.

Normal & Abnormal haemostasis Metabolic response to trauma; Nutrition in Surgery; Burns and scalds; Abdominal wall & abdomen focusing on history taking and examination of a patient with gastrointestinal complaints, Herniae, umbilicus, abdominal wall abnormalities, Technique of abdominal examination, Definition and Causes and signs of an acute abdomen, causes of abdominal distension and causes of abdominal mass; Rectum and anal canal specifically the symptoms of anorectal disease, technique of anorectal examination, conditions presenting with anal pain, conditions presenting with anal bleeding, conditions presenting with anal mass and Pruritus ani; Breast inducing benign conditions, malignant conditions, axillary examination; Neck examination with focus on thyroid, midline masses and non-midline masses; vascular examination of arteries, veins and lymphatic; palliative care in surgery based on W H O definition of Palliative Care, Quality of Life, Pain assessment & management, total pain concept, distress thermometer & Psycho-social support and spiritual support; examination of the face especially general facial appearance, eyes and orbit, mouth, salivary glands.

Assessment: Continuous assessment 40%; Examination 60%

P3752CO Pharmacology III

Proposed NQF Level: 7 **Credits:**16 **Contact Hours:** 4 hours

Content: The module aims at preparing students to prescribe appropriate chemotherapy of antiviral, antifungal, anti-parasitic infections and cancer chemotherapy. The pharmacological basis of drug therapy in disorders of the central nervous system, the endocrine system and blood will particularly be covered. Much emphasis will continue to be placed on the development of students' ability to evaluate the therapeutic actions of drugs to be discussed from the perspectives of their mechanisms of action and pharmacological properties. Students will be assisted to gain knowledge of the importance of the health team in the care of patients. The module will focus on: receptors, neurohumours and neurotransmission in the central nervous system; general anaesthetics; local anaesthetics; analgesics: Opioid and non-steroidal anti-inflammatory analgesic agents; drug addiction and abuse; ethanol; hypnotics and sedatives, antiepileptic drugs; anti-psychiatric, antipsychotic and anti-maniac drugs; antidepressants and anxiolytics; principles of antibiotic prescribing; HIV replication; Antiretroviral drugs: Classifications and mechanisms of action and resistance development; principles antiretroviral therapy and HAART; non-antiretroviral and antifungal agents: mechanisms of their action and clinical uses particularly in opportunistic infections in immunocompromised patients; chemotherapy of parasitic infections (anti-helminthics); chemotherapy of neoplastic diseases; tumour cell growth and cell kill hypothesis; sites of action of cytotoxic drugs in the cell cycle; antineoplastic drugs: Classes (Cytotoxics, hormones and biologic response modifiers) therapeutic uses; adverse effects of ctotoxic drug and their management, principles of cancer chemotherapy

Assessment: Continuous assessment 50%; Examination 50%

M3713TR Research Methods and Proposal Writing

Proposed NQF Level: 7 **Credits:**16 **Contact Hours:** 4L x 16 weeks

Content: Introduction to quantitative research and qualitative research: abstract writing, literature review, identification, selection, analysis and formulation of the research problem; Identification and formulation of the research question; Hypotheses formulation. Formulate a problem statement and justification of the study, formulation of the study objectives. **Classification of study types:** Descriptive studies - Exploratory Studies, Cross-sectional studies, Case report, case series, correlational studies. Analytical studies - Cohort studies, Case control studies, Comparative Cross-sectional studies. Intervention studies: Clinical trials, Experimental studies, Quasi-experimental studies, fields interventional studies. The advantages and disadvantages of the difference of study designs. **Introduction to statistics** and data analysis. **Sampling Methods:** Non-probability sampling, Probabilistic or random sampling; sample size determination. Study population, Specification study variables, and types of variables. **Data collection methods** – Data collection techniques, development of data collection tools and/or questionnaires. **Report writing**: Citation of references and referencing styles - The Harvard system, Vancouver style, APA. Ethical Considerations in health research, Research project administration. Research proposal development.

Assessment: Continuous assessment 50%; Examination 50%

FOURTH YEAR LEVEL

M3701AN Anaesthesiology I

Proposed NQF Level: 7 **Credits:**8 **Contact Hours:** 2 hours

Content: This course reviews the physiology, pathophysiology and anatomy of the respiratory, cardiovascular and autonomic nervous systems as well as the pharmacology of medicines used in the context of anaesthesia. The course will acquaint the students with pre-operative preparation of the patient and family; this includes consent to anaesthesia and choice of appropriate preoperative additional medications and investigations.

Students will be taught the principles of General Anaesthesia including the choice of medicines for induction and maintenance, the application of intravenous and inhalational anaesthesia, the use of neuromuscular blocking and analgesic agents, as well as the function of appropriate monitoring during anaesthesia. Complications of General Anaesthesia, in particular in respect the airway management will be discussed in detail.

Students will be lectured on the principles of Regional Anaesthesia including the pharmacology of medicines used for local and regional anaesthesia, and pain management; emphasis will put on spinal anaesthesia and the management of its side effects and possible complications.

Assessment: Continuous assessment 40%; Examination 60%

M3701FH Health Systems Management

Proposed NQF Level: 7 **Credits:**8 **Contact Hours:** 2 hours

Content: As a manager within a health facility, certain leadership qualities and managerial practices contribute to achieving health care objectives. Students will be introduced to leadership skills which are needed for success in health service administration. Understanding different leadership and management theories that characterise organisation management which shape clinical delivery. Health economics applies the tools of economics to issues of the organisation, delivery, and financing of health care. Financial management will include the ability to develop and assess a budget, to determine where monies are best spent, to set up systems to monitor and evaluate the outcomes, to complete a cost benefit analysis of the service provided, and the ability to write up the needed reports. Human resources training will deal with the personnel component of any organisation. For a health services administrator, the responsibilities would include developing policy for hiring, discipline, and termination of personnel through direct management or as a supervisor of the individual assigned to these services. Concepts related to Clinical Governance help shape the day-to-day engagement of clinical delivery within the healthcare system

Assessment: Continuous assessment 60%; Examination 40%

M3701SI Medical Imaging and Diagnostics

Proposed NQF Level: 7 **Credits:**8 **Contact Hours:** 2 hours

Content: Introduction to medical physics, radiation and use of radioisotopes in medicine as a diagnostic tool and for treatment. The module discusses risks to radiation, radiation protection, and legislation on radiation, various imaging techniques, the normal appearance of various tissues and organs in plain films, angiography, contrast studies, tomography and resonance. At the end of the module, a student will be able to differentiate normal from abnormal findings in radiographs and diagnose common pathologies in the chest, abdomen, bone and the skeletal system. The student will also be able to institute due care practices in requesting imaging investigations, be mindful of the comfort of the patient and obtain consent as necessary. Topics covered include principles of radiation physics and radiological technology; radiation protection; radiobiology; X-rays: normal systemic anatomy using plain X-rays (plain films, contrast studies); imaging modalities and their application; radio-isotope imaging, computerised tomography, magnetic resonance imaging, ultrasound, radiological, angiography, images of osteomyoarticular, respiratory, circulatory, digestive, urogenital, haemolymphopoietic, and endocrine systems; radio-therapeutics and bio-effects of radiation.

Applied radiology and diagnostics: cost-effective use of medical imaging, the use of plain films as an imaging primary technique for the general physician, actual working with the ultrasound in bedside care of patients, the benefits of tomography, angiography and radio-magnetic resonance. Topics in neuroscience include MRI, CT and plain films: haemorrhage, subarachnoid and subdural haemorrhage, infarct, oedema, mass and hydrocephaly; in the spine: metastatic mass, disc disease, compression; abdomen: bowel obstruction, aortic aneurysm, renal mass pancreatic mass, hepatic mass, abdominal mass; Chest: pneumonia, effusion, atelectasis, nodule, congestive heart failure, pulmonary oedema, pneumothorax; pelvis: prostate nodule, testicular mass; neck: thyroid nodule; indications of ECHO cardiograph, Doppler; bile duct ultra sound; use of ultra sound and radioisotopes in treatment

Assessment: Continuous assessment 40%; Examination 60%

M3702FM Family Medicine III

Proposed NQF Level: 7 **Credits:**8 **Contact Hours:** 3 hours

Content: This module consists of two parts: The first part aims to introduce students to environmental and occupational health and safety, and the second part aims to introduce students to gerontology, disability and rehabilitation.

Assessment: Continuous assessment 40%; Examination 60%

M3701FN Nutrition and Dietetics

Proposed NQF Level: 7 **Credits:**8 **Contact Hours:** 2 hours

Content: Basic Nutrition: Including digestion, absorption, metabolism, storage, and excretion of nutrients and other markers of nutritional adequacy or excess with emphasis on micronutrients; functions, dietary sources and deficiencies of essential nutrients and water in humans; a balanced diet.

Nutritional needs through the life course: The significance of nutrition throughout the lifecycle with an emphasis on infancy, 1-5 years, adolescents, pregnant and breast-feeding mothers, and old age; the role of nutrients in heart disease, cancer, hypertension, osteoporosis; weight control and eating disorders; vegetarianism; food safety; food fortification; dietary supplements

Public Health Nutrition: Nutrition and public health; practical nutritional assessment; different types of malnutrition (both under and over nutrition including micronutrient deficiency) in the community; disease and disordered eating; the prevalence and distribution of different nutritional problems in a Namibia context; food and nutrition safety and security; the latest policies and interventions in Namibia (including the Food Based Dietary Guidelines; Food and Nutrition Security policy etc).

Therapeutic and Clinical nutrition: Nutrition of patients in health care settings; age of patients, including not only outpatients at clinics, but also (and mainly) inpatients in hospitals to keep a healthy energy balance in patients, as well as providing sufficient amounts of other nutrients such as protein, vitamins and minerals a case-based approach.

Assessment: Continuous assessment 40%; Examination 60%

M3701MS Psychiatry I

Proposed NQF Level: 7 **Credits:**8 **Contact Hours:** 2 hours
Content: Topics: Diagnoses of patients with mental/psychiatric disorders, neuropsychiatry, behavioural neurology and psychopharmacology; application of medical and psychopathological knowledge and procedural skills to collect and interpret data, make appropriate clinical decisions; carry out diagnostic procedures using an appropriate combination of biological, psychological and sociological methods, including up-to-date, ethical and cost-effective clinical practice and effective communication with patients.

Assessment: Continuous assessment 40%; Examination 60%

M3713IM Internal Medicine II

Proposed NQF Level: 7 **Credits:**18 **Contact Hours:** 40 hours per week for 8 weeks
Content: All common medical conditions in the following systems will be covered: Cardio-vascular, Respiratory, Gastrointestinal, Nephrology, Neurology, emergency medicine and Endocrinology, and Dermatology
Refer to syllabus document for full details

Assessment: Continuous assessment 40%; Examination 60%

M3713OG Obstetrics and Gynaecology II

Proposed NQF Level: 7 **Credits:**18 **Contact Hours:** 40 hours per week for 8 weeks
Content: This module aims at making the student gain knowledge, skills and professional attributes necessary for evidence-based practice in Gynaecology. Topics to be covered include The menstrual cycle; Normal and abnormal development of the genital tract; gynaecological exploration; major gynaecological syndromes: leucorrhoea, pelvic pain; menstruation, menstrual abnormalities & menstrual problems: premenstrual syndrome (PMS) & dysmenorrhea; benign and malignant conditions of vulva and vagina; benign and malignant conditions of uterus; ovarian tumours; pelvic inflammatory disease; uterine prolapse; climacteric, menopause and post-menopause; contraception; infertility & assisted reproduction; sexual education and family planning; Hysteroscopy and laparoscopy; Urinary incontinence; Pelvic floor dysfunction – utero-vaginal prolapse; endometriosis; chronic pelvic pain; polycystic ovary syndrome; amenorrhea – primary & secondary; Gynaecological disorders of childhood and adolescence; Gestational Trophoblastic disease; spontaneous miscarriage; recurrent miscarriage; termination of pregnancy and the medico-legal aspect of termination of pregnancy; Ectopic pregnancy; Acute abdomen in gynaecology; the role of Ultrasound in Gynaecology; sexually transmitted infections (STIs); sexual assault and domestic violence

Assessment: Continuous assessment 40%; Examination 60%

M3713PA Paediatrics II

Proposed NQF Level: 7 **Credits:**18 **Contact Hours:** 40 hours per week for 6 weeks
Content: The purpose of this module is to continue to develop an understanding of the normal and sick child, identify abnormalities in growth and development, and to learn how the child relates to their family and the community. Students will attend out-patients, and in-patient wards, including neonatal and oncology wards, attend XR meetings and seminars. They will learn to take a full history and examination of children and come to a provisional diagnosis with differentials. They will learn about the investigations needed to help make a diagnosis. They will formulate a management plan for childhood illnesses. They will learn the principles of administering first aid during medical emergencies, make effective referral and follow-up of a baby or child who requires life-saving care. The student will gain masterly in the following areas: (1)Knowledge of, and skills necessary for safe and efficient paediatric practice, (2) Communicating and interacting effectively with patients, parents and carers, (3) Recognizing a sick child, knowledge of diseases as they occur in children, and how to identify problems in development and health of the child, by problem solving and clinical reasoning, (4) Neonatal care, both normal and abnormal, (5) Recognizing the impact of childhood illness within the family, including ethical issues, (6) Self-reflection on his/her own practice, (7) The principles of dealing with medical emergencies, make effective referral and follow-up of a baby or child who requires life-saving care.

Assessment: Continuous assessment 40%; Examination 60%

M3703SO Surgery II (Orthopaedics and Trauma)

Proposed NQF Level: 7 **Credits:**9 **Contact Hours:** 40 hours per week for 6 weeks

Content: The course will cover the core areas for the non-specialist medical practitioner including:

Orthopaedics: the assessment of the musculoskeletal system; an approach to x-rays & other diagnostic imaging; fracture healing & complications; principles of operative treatment; bone & joint infections; skeletal Tuberculosis; osteoarthritis, gout and other joint pain; rheumatic disorders; bone tumours; Metabolic bone disease, osteonecrosis & osteochondritis; genetic disorders, dysplasia & malformations; neuromuscular disorders; an introduction to ATLS and assessment of the injured patient; general principles of fractures & dislocations; management of wounds & soft tissue including GSW's; brachial Plexus & peripheral nerve injuries; amputation & rehabilitation; acute pyogenic bone & joint infections in children; fractures & joint injuries in children; the child's hip; deformities of legs & feet in children; limb length inequalities

Assessment: Continuous assessment 40%; Examination 60%

M3713SR Surgery II (Urology)

Proposed NQF Level: 7 **Credits:**9 **Contact Hours:** 40 hours per week for 6 weeks

Content: The course will cover the core areas for the non-specialist medical practitioner including but not limited to:

Benign Prostatic Hypertrophy (BPH); urinary tract imaging; renal trauma; ureteric trauma; bladder trauma; urethral trauma; external genital trauma; urinary tract infection (UTI); urolithiasis; cancers; kidney; bladder; testis; penis, prostate, differential diagnosis of scrotal swelling; male infertility, erectile dysfunction, congenital abnormalities, and emergencies as contained in the textbook and lecture materials.

Assessment: Continuous assessment 40%; Examination 60%

M3701SE Surgery II (E.N.T)

Proposed NQF Level: 7 **Credits:**8 **Contact Hours:** 40 hours per week for 6 weeks

Content: The course will cover the core areas for the non-specialist medical practitioner including: Introduction to otorhinolaryngology; **Ear:** applied anatomy & physiology of the external ear; external ear conditions; clinical examination of the ear; applied anatomy & physiology of the middle ear cleft; applied anatomy & physiology of the inner ear; **hearing loss; balance disturbances**; facial nerve and audiometry; applied anatomy & physiology – **Nose:** paranasal sinuses and nasopharynx; **applied immunology/allergology for E.N.T.**; specific conditions of the nose, paranasal sinuses-**Nasopharynx**: applied anatomy & physiology of the mouth and pharynx (oro-pharynx and laryngo-pharynx); obstructive sleep apnea, applied anatomy and physiology of the larynx and trachea; specific conditions of the larynx and trachea; HIV and otorhinolaryngology. **Speech disorders.**

Assessment: Continuous assessment 40%; Examination 60%

M3701SP Surgery II - Ophthalmology

Proposed NQF Level: 7 **Credits:**8 **Contact Hours:** 40 hours per week for 6 weeks

Content: Students learn in a structured environment that integrates didactic lectures and clinical apprenticeship. Students also learn by performing selected examination and management techniques. Under the supervision of a qualified medical practitioner or health professional.

Assessment: Continuous assessment 40%; Examination 60%

M3759FC Module Title: Community Based Education and Service III (COBES III)

Proposed NQF Level: 7 **Credits:**16 **Contact Hours:** 4 weeks

Content: The immersion of the student into the number of rural hospitals in Namibia. The student will participate in all aspects of service delivery at the hospital and outreach in the clinic. The learning will be re-enforced by assessment through observation of skills and assignments related to the patient's illness in the context of the family and community, which include a Quality Improvement Project.

Assessment: Continuous assessment 100%

FIFTH YEAR LEVEL

M3813AN Anaesthesiology II

Proposed NQF Level: 8 **Credits:** 20 **Contact Hours:** 20 hours per week for 4 weeks

Content: This course applies the practice of anaesthesia in different clinical settings: childhood and adulthood, the aged, in different surgical domains, including obstetric care, and under different medical conditions. Students observe, experience and practice pre-operative assessment and pre-medication, as well as providing peri-operative care in the form of general and regional anaesthesia, in the set-up of clinical training by an anaesthesiologist. Students will learn the application and interpretation of peri-operative clinical and technical monitoring of patients. They will gain observational and practical experience in ICU management of patients.

Assessment: Continuous assessment 40%; Examination 60%

M3813IM Internal Medicine III

Proposed NQF Level: 8 **Credits:**40 **Contact Hours:** 40 hours per week for 8 weeks

Content: Diagnosis, management and follow up of all common medical conditions in the following systems will be covered.

1. Cardio-vascular, Respiratory, Gastrointestinal, Nephrology, Neurology, Endocrinology, Rheumatology, Infectious diseases (COVID-19, TB, HIV, Malaria) and Oncology
2. Emergency conditions of all the above systems will also be included

Assessment: Continuous assessment 40%; Examination 60%

M3813OG Obstetrics and Gynaecology III

Proposed NQF Level: 8 **Credits:**40 **Contact Hours:** 40 hours per week for 8 weeks

Content: This module enables students to practice gynaecological and obstetrical care of patients and, under the supervision of a Gynaecologist-Obstetrician, shadow as an intern and gain practical hands-on-experience in the care of individual patients with conditions affecting the reproductive organ-systems and their functions in women during the entire reproductive cycle as well as during states of pregnancy and lactation and deliver reproductive health care in a health facility, household, or community.
Course includes performing the listed obstetrical procedures and assisting in frequently performed obstetric/gynaecologic surgical operations. Students will acquire practical skills in the assessment of sexuality, hereditary conditions, normal pregnancy and high risk pregnancy, home delivery and institutional management of labour; complications during labour, caesarean section and assisted/operative vaginal delivery; indications and contra-indications of frequently used procedures, drugs and interventions; puerperium; contraception; infertility; the epidemiology, pathogenesis and clinical manifestations of communicable and non-communicable diseases that affect the reproductive system and functions including sexually transmitted infections (STI), that are prevalent in Namibia and neighbouring countries; emergencies affecting pregnancy and the reproductive systems; evidence-based care for women and adolescents; invasive and non-invasive diagnostic and therapeutic procedures; cost-effective and rational use of drugs; surgical interventions and laboratory investigations; screening for disease markers for prevention of diseases; health care for populations and health groups; ethical issues and the gate-keeping role of physicians; health resource allocation and management, and health systems research in gynaecological-obstetrical care.

Assessment: Continuous assessment 40%; Examination 60%

M3813PA Paediatrics III

Proposed NQF Level: 8 **Credits:** 40 **Contact Hours:** 40 hours per week for 8 weeks

Content: The aim of this module is to continue to improve the knowledge base and to enable the student to gain mastery in clinical skills necessary for managing a healthy child and sick child, identify abnormalities in growth and development, and to learn how the child relates to their family and the community. The emphasis will be laid on history and examination of a child, making a correct diagnosis and formulating a management plan for the common childhood illnesses including neonatology and paediatric oncology; identifying and arranging appropriate investigations and interpreting these to help formulate an appropriate management plan. Students will also learn the principles of providing emergency support in the paediatric setting; interaction with aspects of obstetric care especially as it relates to how maternal health and delivery impacts on the health of the neonate.

Assessment: Continuous assessment 40%; Examination 60%

M3813MS Psychiatry II

Proposed NQF Level: 8 **Credits:**20 **Contact Hours:** 40 hours per week for 8 weeks

Content: Topics:

1. Personality (Principles of Personality development) and objective testing of Personality
2. Definition of personality, trait, factors influencing personality development, theories of personality and personality assessment.
3. Introduction and classification of Psychiatric disorders
4. Aetiology of Psychiatric disorders
5. Approach to patient management
6. Overview of contribution of different scientific disciplines to psychiatric aetiology
7. Psychiatry history taking, mental status and physical examination
8. Neurodevelopmental and childhood disorders
9. Schizophrenia Spectrum and other psychotic disorders
10. Bipolar and related disorders
11. Classification of psychotropic drugs and common side effects
12. Common psychiatric emergencies (suicide and violent behaviour, dystonia, NMS and Catatonia)
13. Depressive disorders
14. Anxiety disorders
15. Obsessive –compulsive and related disorders
16. Trauma-and stress-related disorders

17. Personality disorders
18. Somatic symptoms and related disorders
19. Psychiatric disorders associated with medical illnesses (Epilepsy and HIV)
20. Neurocognitive disorders
21. Alcohol and other common substances related disorder in Namibia
22. Other psychiatric disorders (sleep-wake disorders, Sexual Dysfunction, eating disorders, prevention and public awareness services, counselling and psychological therapies, legal and ethical issues in Psychiatry)

Assessment: Continuous assessment 40%; Examination 60%

M3813SU Surgery III

Proposed NQF Level: 8 **Credits:**40 **Contact Hours:** 40 hours per week for 8 weeks

Content: The course will cover the specific topics of pain & pain management; surgical nutrition; wound healing; metabolic response to trauma; Infections of surgical importance; disorders of the appendix; burns & scalds; disorders of the biliary tree; liver disorders of surgical importance; non-malignant thyroid disorders; oesophageal disorders; fluid & electrolyte disorders in surgery; pancreatitis; head injury; thoracic trauma; malignant thyroid disorders; stomach & duodenum; the small bowel; non-malignant large bowel disorders; peritonitis & principles of management; malignant large bowel disorders; breast disorders; breast cancers; arterial disease; aneurysmal disease; venous disease & VTE; the paediatric surgical patient; paediatric trauma; common paediatric surgical emergencies; common paediatric solid tumours; thoracic malignancies; abdominal trauma; investigation & management of postoperative jaundice; principles of palliative care in surgical practice; palliative care: spiritual support; investigation & management of postoperative pyrexia; haemorrhoids & anal mass; peri-anal sepsis; principles of safe; surgery: who checklist; the spleen & lymphatic disorders.

Assessment: Continuous assessment 40%; Examination 60%

M3813TR Research Project

Proposed NQF Level: 8 **Credits:**18 **Contact Hours:** 4 hours

Content: DATA COLLECTION AND ANALYSIS: The student focuses on data collection during the first semester of the fourth year as a longitudinal module from primary or secondary sources in Windhoek /Khomas region. According to the proposal, the data can be from the clinics, hospital, City Council, Ministry of Health and Social Services or its institutions or from the community in a specified income cluster. The student will apply the skills of research methodology and epidemiology to clean and process the data using a suitable software package. At the end of the semester, the student will make a presentation detailing the results of the field work, summary tables and preliminary findings. Feedback from the student conference assists the student to review the analytical framework and finalise the data analysis. The conference presentation rating will constitute the continuous assessment for the semester. The student can then proceed to write the thesis using the UNAM format. Optionally, students can write a scientific paper to be submitted in a refereed journal.

WRITING AND PRESENTATION OF THESIS: This final stage is for the student to write the Thesis with regular advice from the Faculty mentor. The student will be able to make revisions using advice from the mentor aiming at producing the final revised copy one month before the end of the tenth semester (end of year 5 academic year). The thesis will be graded by two Faculty appointed evaluators. The student will also make a presentation of the research study at the final student conference to be held before graduation. The mentor will assist a student who requests to prepare a manuscript for publication in a refereed scientific journal.

Assessment: Continuous assessment 100%

M3812FL Electives

Proposed NQF Level: 8 **Credits:**18 **Contact Hours:** 40 hours fieldwork per week for 4 weeks

Content: The student will complete four weeks in the Electives period. Upon completing an elective, the student is responsible for ensuring that his or her evaluation form is completed and submitted to the School of Medicine for credit. In all cases students must seek approval of a specific elective and the School reserves the right to approve and or cancel chosen electives. We will also actively discourage students from scheduling electives during periods the School has designated for vacation.

Assessment: Continuous assessment 100%

SIXTH YEAR LEVEL

M3873IM Internal Medicine IV

Proposed NQF Level: 8 **Credits:** 40 **Contact Hours:** 40 hours per week for 8 weeks

Content: They will practice like student interns and in the process, they will master
diagnosis, management and follow up of most common medical conditions in the following systems:

1. Cardio-vascular, Respiratory, Gastrointestinal, Nephrology, Neurology, Endocrinology, Rheumatology, Infectious diseases (COVID-19, TB, HIV, Malaria), Oncology
2. Emergency conditions of all the above systems will also be practised and any other conditions that present to hospital

Assessment: Continuous assessment 60%; Examination 40%

M3873OG Obstetrics and Gynaecology IV

Proposed NQF Level: 8 **Credits:** 40 **Contact Hours:** 40 hours per week for 8 weeks

Content: As a way of reducing maternal and neonatal mortality emphasis will be put on the following areas for student interns to gain more practical knowledge: Antenatal care – traditional and focussed ANC; Premature rupture of membrane (PROM) Preterm labour and Preterm birth; Induction and augmentation of labour; Hypertensive conditions in pregnancy particularly preeclampsia, eclampsia & HELLP syndrome; Cardiac disease in pregnancy; Operative vaginal delivery i.e. vacuum extraction and low forceps delivery; Caesarean section/delivery; Obstructed labour & ruptured uterus; Retained placenta; Post-partum haemorrhage; Puerperal sepsis; Acute abdomen in obstetrics – ectopic pregnancy, appendicitis in pregnancy, red degeneration, etc.

The following gynaecology topics will also be taught to the student interns: Post-abortal care – incomplete abortion, septic abortion, etc. (the 4 pillars of post-abortal care) Postpartum sterilization; Short term and long term contraceptive methods; Infertility; Medico-legal aspects of sexual assault and/or rape; Termination of pregnancy and Medico-legal aspects of termination of pregnancy; Sexually transmitted infections; Pelvic infections – pelvic inflammatory disease; Uterine fibroids; Pre- and post-operative assessment and care and Discharge plans.

Assessment: Continuous assessment 40%; Examination 60%

M3873IM Paediatrics IV

Proposed NQF Level: 8 **Credits:** 40 **Contact Hours:** 40 hours per week for 8 weeks

Content: The student interns will spend ten (5) weeks in the various units of the Paediatric of the Teaching Hospitals. They will be required to attend daily ward rounds and all academic meetings including periodic mortality statistics meetings. Clinical supervision will be provided by both hospital staff and UNAM SOM academic staff. The student interns will have encountered many medical conditions in the preceding years. They should be, at this point, able to recognize the normal child and his/her development and to manage many of the common paediatric conditions in Namibia, including the following: Anaphylaxis, asthma, eczema; Malnutrition, marasmus and kwashiorkor; acute and chronic infections; Gastro-enteritis, dehydration; Upper respiratory infections, otitis media, rhinitis, sore throat; Lower respiratory infections, bronchiolitis, croup, bronchitis, pneumonia; Meningitis and meningococcal septicaemia; Renal diseases including nephrotic syndrome and acute nephritis; Febrile convulsions, epilepsy; anaemia and bleeding disorders; nappy rash; Diabetes mellitus; Down's syndrome and other chromosome disorders; Understand the investigation and management of the above conditions, fluid and electrolyte therapy and paediatric prescribing; and common neonatal disorders such as prematurity, neonatal sepsis and neonatal jaundice; Viral exanthema; congenital infections; Immunodeficiency; Coeliac disease; congenital heart disease; neural tube defects; Dysmorphic syndrome; inborn errors of metabolism; congenital hip dysplasia; Septic arthritis; transient synovitis; juvenile rheumatoid arthritis; Kawasaki's disease; gastrointestinal reflux; inflammatory bowel disease; Hirschsprungs disease; intussusception; pyloric stenosis; Henoch Schönlein purpura; idiopathic thrombocytopaenia purpura; Sickle cell disease and other blood disorders, Thalassaemia and acute leukaemia; solid paediatric tumours; vesico-ureteric reflux; accidental poisoning; Munchausen by proxy; autism; attempted suicide; attention deficit hyperactivity disorder; and eating disorders.

Assessment: Continuous assessment 40%; Examination 60%

M3873MS Psychiatry III

Proposed NQF Level: 8 **Credits:** 20 **Contact Hours:** 20 hours per week for 4 weeks

Content: Cumulatively, students master the following competencies: Assessment of patients with different psychiatric disorders; Management of psychiatric disorders; Handling of aggressive patient; Assessment of patients with suicidal/homicidal behaviour; Management of substance and Addiction disorders; Ethics and the law; Counselling and crisis intervention; Family interventions; Pharmacological and other treatments in psychiatry; Management of other psychiatric emergencies.

Assessment: Continuous assessment 40%; Examination 60%

M3873FM Family Medicine IV

Proposed NQF Level: 8 **Credits:** 20 **Contact Hours:** 20 hours per week for 4 weeks

Content: The module will be covered in the following contexts: Outpatient Department of Hospitals and Primary Care Clinics in Windhoek. There will be an emphasis on chronic diseases (e.g. Diabetes and HIV), basic surgical outpatient skills, community paediatrics, and basic antenatal care.

Assessment: Continuous assessment 100%

M3873SU Surgery IV

Proposed NQF Level: 8 **Credits:** 40 **Contact Hours:** 40 hours per week for 8 weeks

Content: Areas to be covered include: review of eliciting symptoms and signs in surgery as well as evidence-based clinical decision making; ***surgical biology*****,** with specific emphasis on wound healing, blood and blood products, anaemia, haemostasis, surgical pathology, shock, hypovolemia and blood transfusion, gastrointestinal haemorrhage, surgical infection and basic surgical skills; ***perioperative care*****:** focusing on preoperative preparation, nutrition and fluid therapy, WHO surgical safety checklist, postoperative care and analgesia in the perioperative period, surgical nutrition; ***trauma and the injured patient***: specifically the assessment of the injured patient, ABCDE of trauma, pathophysiology and management of head injury & spine injury, soft-tissue injuries of the neck, chest trauma, abdominal and pelvic injuries, vascular trauma and compartment syndrome, burns and principles of skin grafting, bites and stings**;** ***priority surgical disorders:*** of the skin and soft tissues including perianal & perineal sepsis, abdominal wall hernias, esophageal disorders, stomach and duodenum, acute abdomen, small bowel, colon and rectum, breast and endocrine surgery, liver, gallbladder and pancreas, infections and infestations of surgical importance; ***common paediatric surgical disorders; principles of palliative care in surgery***: being a member of a health team; and ***ethics and medico legal issues; patient consultation; patient discharge and follow-up.***

Assessment: Continuous assessment 60%; Examination 40%

POSTGRADUATE PROGRAMMES

- 26PDFM - Postgraduate Higher Diploma in Family Medicine
- 15MANA - Master of Medicine (Anaesthesiology, Critical Care & Pain Management)
- 26MBMA - MPhil Biomedical Sciences (Anatomy)
- 26MBMC - MPhil Biomedical Sci (Med Biochemistry)
- 26MBMH - MPhil Biomedical Sciences (Physiology)
- 26MBMM - MPhil Biomedical Sci (Med Microbiology)
- 26MBMP - MPhil Biomedical Sciences (Pathology)
- 26DBMA - DPhil Biomedical Sciences (Anatomy)
- 26DBMC - DPhil Biomedical Sci (Med Biochemistry)
- 26DBMH - DPhil Biomedical Sciences (Physiology)
- 26DBMM - DPhil Biomedical Sci (Med Microbiology)
- 26DBMP - DPhil Biomedical Sciences (Pathology)

Postgraduate Higher Diploma in Family Medicine (26PDFM)

Aims and Objectives

The purpose of the Postgraduate Diploma in Family Medicine (Level 8) is to train and equip doctors with the appropriate knowledge and clinical skills to provide quality care in areas relevant to general practice/primary care. There has been a great national interest and need for a course that can provide doctors with additional skills and training in primary care, especially from Namibian graduates who trained outside the country. The Postgraduate Diploma will address this.

The rationale of this qualification is to improve and strengthen the primary health care platform to address health care needs in Namibia. Bridging the gap between the health care system and communities is of utmost importance in achieving health goals. The World Health Organization (WHO) has noted that "doctors with postgraduate training in Family Medicine or general practice" are an essential part of effective approaches to primary care. At a national level, the Ministry of Health and Social Services (MoHSS) has recognized the role that doctors with postgraduate training in Family Medicine can play in clinical governance and in improving the quality of care at district health and primary services. The MoHSS strategic plan notes that generalist doctors who are trained across multiple disciplines, can offer useful clinical leadership in health districts and posts for doctors with postgraduate training in Family Medicine are offered at a district level.

Programme coordinator: D Felicia Christians, - Email: fchristians@unam.na

Graduates who will complete the Postgraduate Diploma in Family Medicine will be able to fill the following careers:

- Competent clinicians
- Community advocates
- Critical thinkers
- Change agents
- Capacity builders
- Collaborators

This qualification may articulate into the Master of Medicine in Family Medicine or related cognate area of learning, provided other requirements are met. This qualification is fully aligned to both institutional policies and NQF requirements. Relevant stakeholders were involved in the development/transformation process and, endorsed this qualification to register on the NQF.

Holders of this qualification should be able to:

- Perform as competent clinicians,
- Perform as change agents who help lead improvement in the quality of care,
- Develop the capability of self and team members,
- Apply critical thinking to help the team make sense of evidence and health information,
- Apply the principles of community orientated primary care
- Develop and demonstrate a collaborative approach to working in a primary care team

First Year Level

Subject	*Modules*	Credits
PGD Family Medicine at first year level	3	60
Total	**3**	**60**

Students take all modules below:			
Semester	**Code**	**Course Title**	**Compulsory (C) / Elective (E)**
S1/2	M5819FA	Learning in Primary Care Teams	C
S1/2	M5819FB	Primary Care Consultation	C
S1/2	M5819FC	Community Oriented Primary Care	C

Second Year Level

Subject	*Modules*	Credits
PGD Family Medicine at second year level	3	48
Total	**3**	**48**

Students take all modules below:			
Semester	**Code**	**Course Title**	**Compulsory (C) / Elective (E)**
S0	M5813FF	Clinical Primary Care	C
S1/2	M5819FD	Principles of Primary Care	C
S1/2	M5819FE	Clinical Governance in Primary Care	C

COURSE DESCRIPTORS

M5819FA Learning in Primary Care Teams

Proposed NQF Level: 8 **Credits:**20

Module Content

1. Illustrate the role of the diploma graduate as both learner and facilitator of other's learning
2. Practise relevant principles of adult education and learning theory
3. Formulate learning needs, develop a learning plan, and plan educational activities
4. Practice using reflection to aid learning
5. Facilitate small group learning
6. Engage in one-on-one teaching activities confidently
7. Provide and elicit effective feedback

M5813FF Clinical Primary Care

Proposed NQF Level: 8 **Credits:**8

Module Content

1. Manage patients with undifferentiated problems in primary care
2. Respond effectively to the quadruple burden of disease
3. Provide ethical, legal, professional, and scientifically sound healthcare
4. Perform appropriate clinical, communication, and procedural skills
5. Provide comprehensive (preventative, promotive, curative, rehabilitative, palliative), coordinated and continuing care
6. Manage resources within the context of the multi-disciplinary team and the referral system towards optimal clinical care
7. Interpret and use evidence and guidelines to reflect on practice
8. Assist with clinically related administration

M5819FB Primary Care Consultation

Proposed NQF Level: 8 **Credits:**20

Module Content

- Perform the tasks that should be achieved in a consultation
- Demonstrate the communication skills that can help achieve these tasks
- Generate a holistic assessment of a patient and express it as a 3-stage assessment
- Construct a genogram and compose a family assessment as part of a consultation
- Employ the brief behavior change counselling (BBCC model) to support lifestyle changes
- Demonstrate an approach to managing an ethical dilemma

- Demonstrate the principles of breaking bad news
- Evaluate, reflect on, and critique the consultation
- Demonstrate effective consultation and communication skills when faced with cultural and language barriers

M5819FC Community Oriented Primary Care

Proposed NQF Level: 8 **Credits:**20

Module Content

1. Demonstrate the principles of community-oriented primary care
2. Identify and characterize a community within which your practice is situated
3. Evaluate the major health issues of that community
4. Perform a home visit related to an important health Issue from the community.
5. Support a relevant group already involved in the community.
6. Design a basic intervention that would address one of the high priority health issues

M5819FE Clinical Governance in Primary Care

Proposed NQF Level: 8 **Credits:**20

Module Content

- Support quality of care & performance of the local health system (private practice, PHC facility, district hospital) in line with policy and guidelines
- Conduct a Quality Improvement Cycle and partake in other clinical governance activities.
- Demonstrate to be a role model for change – people need to see the change in action (for a specific facility or service)
- Provide vision, innovation, and critical thinking
- Support aspects of corporate governance relevant to clinical care – able to influence planning and budgeting for resources

MASTER OF MEDICINE (ANAESTHESIOLOGY, CRITICAL CARE AND PAIN MANAGEMENT) (15MANA)

Aims and Objectives

The purpose of the MMed in Anaesthesiology, Critical Care and Pain Management is to equip Medical Practitioners with appropriate knowledge and clinical skill for safe, effective administration of anaesthesia, adequate control of pain and optimal provision of critical care services as specialist Anaesthesiologists.

The rationale of this qualification emanates from the paucity of qualified Anaesthesiologists in most hospitals in Namibia resulting in unmet surgical and anaesthetic service. The Ministry of Health and Social Services is unsuccessfully trying to recruit Anaesthesiologists beyond the borders of Namibia. Currently, there is no in-country training of Anaesthesiologists to improve the number of specialists in this field. In Namibia, one of the pillars of the Harambee Prosperity Plan is the reduction of Maternal and Infant mortality rates. The University of Namibia would contribute enormously to this aspect of the plan by training this cadre of anaesthesiologists Medicine are offered at a district level.

Programme coordinator: Prof Ambrose Rukewe, Email: arukewe@unam.na

Holders of this qualification should be able to:

- Demonstrate analytical, interpretational, scientific writing, problem solving, managerial, planning, integration, and evaluation and presentation skills.
- Exhibit and apply in clinical practice the knowledge required of a Specialist Anaesthesiologist.
- Exhibit and practice clinically the skills required of a Specialist Anaesthesiologist in an Intensive Therapy Unit.
  Exhibit and practice the application of the attitudes and competences required of a professional Anaesthesiologist (including organizational, management and leadership skills as well as applying strategies for health promotion, prevention of ill-health and co-morbidities).
- Practice regional, local and general anaesthesia in complex situations.
- Teach, train and supervise trainees in Anaesthesiology.
- Appraise clinical research critically and conduct clinical audits/high impact research.

Career opportunities

- The MMed (Anaesthesiology, Critical Care and Pain Management) is registrable as a specialist qualification by the Health Professions Council of Namibia (HPCNA).
- Graduates could work as specialists in various areas of anaesthesiology, critical care and pain medicine in public and private hospitals.
- Graduates will further be equipped to become researchers in the field of anaesthesiology, critical care and pain medicine.
- Graduates could be employed as academic staff in the School of Medicine.

Criteria for admission

- Prospective students must be in possession of a level 8 UNAM MBChB degree or equivalent from any other accredited institution with an average mark of at least 60% and must have completed 30 months of clinical practice that must include at least 24 months in a recognised supervised internship programme.
- A prospective student must be registered with the Health Professions Council of Namibia (HPCNA) as a Medical Practitioner.
- Prospective students whose medical education was not in English shall provide proof of proficiency in spoken and written English e.g. TOEFL (≥75) or IELTS academic version only (overall score of at least 7.5), not more than 2 years old at the time of application.
- Successful completion of the UNAM Level 8 Postgraduate Diploma in Anesthesiology and registration with Health Professions Council of Namibia (HPCNA) and employment by the Ministry of Health & Social Services of Namibia (MoHSS) or supernumerary employment with the MoHSS, will be an advantage.
- All prospective students will be interviewed by the Postgraduate Admissions Committee of the School of Medicine. (Proof of practice in Anaesthetic unit/department for at least six months will be desirable).

Requirements for qualification award

The MMed (Anaesthesiology, Critical Care and Pain Management) will be awarded to the candidate who has successfully passed all the prescribed modules (694 credits), the two integrated examinations and has completed the one year extended clinical training in anaesthesiology (both core and electives).

Articulation Options

A student may opt to truncate the MMed (Anaesthesiology, Critical Care and Pain Management) after the first integrated (Part I) examination, but will exit with Postgraduate Diploma in Anaesthesiology.

The MMed (Anaesthesiology, Critical Care and Pain Management) may serve as an entry point to sub-specialisations (Pain Management, Paediatric Anaesthesiology, Cardiac Anaesthesiology, Neuro-anaesthesiology), post-doctoral research projects and programmes (Fellows, PhD, MD, DSc) in the relevant field.

Mode of Delivery

The MMed (Anaesthesiology, Critical Care and Pain Management) is a full-time programme with a modern integrated spiral curriculum. This competency based programme will combine intensive teaching blocks with simulations, clinical training, webinars and research. Furthermore, intensive Anaesthesiology (coupled with Surgery) camps will provide opportunities for students to collect the required number of cases, while it will simultaneously assist the Ministry of Health and Social Services to alleviate the pressing needs in the field.

Teaching will take place at designated teaching hospitals and the Health Sciences Campus of the University of Namibia. The delivery is mostly based on adult learning principles with training spread over a period of 48 months. Modules are staggered with each module providing the basis for the next module. While students will be allowed to start with the subsequent module without having passed the previous one, the module must be passed before the student will be allowed to take the examination of the subsequent module. Students must pass the first integrated Part I examination before embarking on the second 24 month training period. By definition, a spiral curriculum is a flexible model where the exact length of each individual module will be determined by the availability of cases and training opportunities. A particular module may thus span more than one calendar year.

Duration of study

The programme cannot be completed in less than 4 years. The maximum duration of the programme is 5 years.

Assessment Criteria

Being a competency based programme, the final mark of each module will consist of continuous assessment (60%) and a module examination (40%). Continuous assessment will include amongst others, an externally moderated student portfolio, case logbooks and tests.

A minimum continuous assessment mark of 50% will be required to qualify for each module examination. In addition, all previous modules must be passed before the student is allowed to take the modular examination in any given module. For all modules, a pass mark of 50%, as well as a subminimum mark of 50% for the module examination is required. Students will qualify for a supplementary if they fail the module examination irrespective of their mark in this examination.

Two integrated Part I and Part II examinations will take place – the first after completion of the first seven modules, and the second after completion of all the modules. A minimum mark of 50% is required to pass these final integrated Part I and Part II examinations consisting of theory papers, OSCE's and semi-structured oral assessments.

Students who fail to obtain this pass mark, will be allowed to take a supplementary examination after a remedial period of at least one month. The supplementary examination will consist of all components of the regular examination irrespective of the performance of the student in the individual components during the regular examination.

Minimum requirements for re-admission into the Program

A student will not be readmitted into the MMed if she/he has failed the respective integrated Part I examinations on third attempt (i.e. three attempts to clear both examinations, not three attempts per examination). Please note that the regular examination and supplementary examination is considered as one attempt.

Advancement and progression rules

A student will advance to the second part (year 3) of the MMed only after passing the first integrated Part I examination. Other than this, there is no year to year advancement as modules in a spiral curriculum are flexible and could span a calendar year.

PART 1 - First Year Level

Subject	*Modules*	Credits
MMED Anaesthesiology at first year level	3	135
Total	**3**	**135**

Students take all modules below:		
Code	**Course Title**	**Hours**
ASB5989	Basic Concepts and Practice of Anaesthesiology	450
ASM5989	Anaesthesiology and Trauma	450
ASA5989	Comorbidities and Peri-operative Care	450

PART 1 - Second Year Level

Subject	*Modules*	Credits
MMED Anaesthesiology at second year level	6	135
Total	**6**	**135**

Students take all modules below:		
Code	**Course Title**	**Hours**
ASH5989	Pathophysiology and Higher Care of Sick Patients	450
ASP5989	Anaesthesiology in Pregnancy	450
ASC5989	Anaesthesiology and the Child	450
ASE5989	Integrated Part 1 (OSCE)	
ASY5980	Integrated Part 1 (THEORY)	
ASO5998	Integrated Part 1 (ORAL)	

PART 2 - Third Year Level

Subject	*Modules*	Credits
MMED Anaesthesiology at second year level	3	140
Unam Core	1	24
Total	**4**	**164**

Students take all modules below:		
Code	**Course Title**	**Hours**
ASM5999	Management in Anaesthesiology Practice	4h/week for 14 week
ASC5999	Clinical Training Cor	200
ASD5999	Advanced Anaesthesiology II	600
ASB5999	Clinical Training Elective	600

PART 2 - Fourth Year Level

Subject	*Modules*	Credits
MMED Anaesthesiology at second year level	8	260
Total	**8**	**260**

Students take all modules below:		
Code	**Course Title**	**Hours**
ASM5999	Management in Anaesthesiology Practice	400
ASC5999	Clinical Training Core	300
ASD5999	Advanced Anaesthesiology II	400
ASB5999	Clinical Training Elective	300
AST5999	MMed (Anaesthesiology) Thesis	1200
ASE5998	Integrated Part 1 (OSCE)	
ASY5990	Integrated Part 1 (THEORY)	
ASO5999	Integrated Part 1 (ORAL)	

MASTER OF PHILOSOPHY IN BIOMEDICAL SCIENCES

Aims and Objectives

The Master of Philosophy program in Biomedical Sciences is purposed to equip students with high level research skills, competency, and specific knowledge in selected fields of biomedical sciences, which include anatomy, medical biochemistry, medical microbiology, physiology, or pathology. Training will include identification of priority, relevant research topics, proposal development, research execution, data analysis and dissemination for evidence-based decision making and practice in the health field.

The program is designed to align with the university's vision of becoming an international hub of excellence in higher education by training skilled health experts with capability to contribute to the attainment of Namibia's national development plans, Vision 2030, and the Sustainable Development Goals (SDGs). By equipping students with advanced research skills and specialized knowledge in biomedical fields, the program directly addresses priorities outlined in Namibia's development agenda such as capacity building through education and skills development. Through rigorous training in identifying priority research areas, proposal development, research execution and informing evidence-based decision-making, graduates will contribute to achieving Namibia's Vision 2030 overarching goal of transforming Namibia into a healthy, food-secure nation in which all preventable, infectious, and parasitic diseases are under control, enabling a high standard of living. Furthermore, the program's emphasis on research aligned with SDGs, including Zero Hunger and Good Health and Wellbeing, ensures its relevance to international imperatives for sustainable development. By nurturing skilled health experts and fostering collaboration, the program plays a crucial role in advancing Namibia's socioeconomic growth while contributing to global efforts towards a more equitable and sustainable future.

Programmes:

- 26MBMA - MPhil Biomedical Sciences (Anatomy)
- 26MBMC - MPhil Biomedical Sci (Med Biochemistry)
- 26MBMH - MPhil Biomedical Sciences (Physiology)
- 26MBMM - MPhil Biomedical Sci (Med Microbiology)
- 26MBMP - MPhil Biomedical Sciences (Pathology)

Programme Coordinator: Prof. Quenton Wessels, E-mail: qwessels@unam.na

Holders of this qualification should be able to:

- Conceptualise relevant research, plan, execute, analyse and effectively disseminate findings.
- Review current and evolving scientific research within the biomedical sciences field.
- Utilize scientific reasoning, critical thinking, and evidence-based approaches in decision-making and practice in biomedical sciences.
- Apply ethical principles and make professional decisions in accordance with established standards.
- Engage in reflective practice, evaluating their professional values, ethics and competencies as part of their commitment to lifelong learning.
- Employ effective communication and organisational skills in collaboration with diverse health experts.

Career opportunities

- Academia
- Biomedical Laboratory Scientist/Technologist (relevant discipline/field)
- Innovator/Entrepreneur
- Quality Assurance analyst
- Medical and Surgical Product and Device Specialist
- Consultant/Advisor
- Biomedical Researcher (relevant discipline/field)

Criteria for admission

Candidates are eligible for admission to this program if they meet the following criteria:

- Hold an Honours degree at NQF level 8 degree in Biomedical sciences relevant discipline/field of choice as indicated under aims and objectives section, or an equivalent relevant qualification from a recognized institution.
- Applicants with foreign qualifications must submit a certificate of evaluation from the Namibia Qualifications Authority (NQA).
- Have a degree average of at least 60% from the University of Namibia or an equivalent institution.
- Fulfill the General Admission Requirements set forth by the University of Namibia.
- Along with the application, candidates need to submit a detailed research proposal highlighting their proposed area of research, objectives, methodology and a review of existing literature. The research proposal will be evaluated for relevance, novelty, feasibility and availability of a supervisor. As per Section B. 3.3. of the Higher Degrees Policy Procedures, Rules and Regulations, the Department reviews the submitted concept note and identifies potential supervisor(s) and recommends the applicant for admission through the Admission and Examination Board, considering the applicant's fulfilment of the minimum admission requirements, availability of supervisors and space.

Requirements for qualification award

This qualification will be awarded to candidates credited with a minimum of 256 credits, and who have met all the requirements of the degree programme.

First Year Level

Subject	*Modules*	Credits
MPhil at first year level	1	240
Unam Core	1	16
Total	**2**	**256**

Students take all modules below relevant to their discipline			
Disciplines	**Module Code**	**Course Title**	**Compulsory (C)/Elective (E)**
All discipline	U6989LA	Academic Literacy For Postgraduate Students	C
MPhil Biomedical Sciences (Anatomy)	M6983BA	MPhil Thesis (Anatomy)	C
MPhil Biomedical Sci (Med Biochemistry)	M6983BB	MPhil Thesis (Medical Biochemistry)	C
MPhil Biomedical Sciences (Physiology)	M6983BH	MPHIL THESIS (PHYSIOLOGY)	C
MPhil Biomedical Sci (Med Microbiology)	M6983BM	MPHIL THESIS (MEDICAL MICROBIOLOGY)	C
MPhil Biomedical Sciences (Pathology)	M6983BP	MPHIL THESIS (PATHOLOGY)	C

DOCTOR OF PHILOSOPHY IN BIOMEDICAL SCIENCES

Aims and Objectives

The purpose of this qualification is to provide students with the opportunity to independently carry out advanced original research, significantly contribute to the body of knowledge and obtain specialization in relevant areas of biomedical sciences, which include anatomy, medical biochemistry, medical microbiology, physiology, or pathology. Through in-depth reviews and critical appraisal of relevant literature, students will attain deep theoretical knowledge in the fields of specialization, identify research gaps, emerging and new scientific new approaches. Critical and creative thinking skills will be fostered.

The Doctor of Philosophy program in Biomedical Sciences is designed to address Namibia's national development plans, Vision 2030, and the Sustainable Development Goals (SDGs). Through independent research and specialization in areas such as anatomy, medical biochemistry, microbiology, physiology, and pathology, students will contribute to transforming Namibia into a knowledge-based society, a key objective of Vision 2030. By aligning research areas with SDGs such as Zero Hunger, Good Health and Wellbeing, Quality Education, Industry, Innovation, and Infrastructure, and Responsible Consumption and Production, the program directly supports international sustainable development initiatives. Emphasis on translational research will further enhance the program's impact on national and international development goals, in line with the University of Namibia's mission and vision of becoming a sustainable international hub of excellence in higher education by 2030. Upon completion, graduates will earn an internationally recognized Doctor of Philosophy qualification, contributing to higher education outputs and the advancement of sustainable socioeconomic growth in Namibia and beyond.

Programmes:

- 26DBMA - DPhil Biomedical Sciences (Anatomy)
- 26DBMC - DPhil Biomedical Sci (Med Biochemistry)
- 26DBMH - DPhil Biomedical Sciences (Physiology)
- 26DBMM - DPhil Biomedical Sci (Med Microbiology)
- 26DBMP - DPhil Biomedical Sciences (Pathology)

Programme Coordinator: Prof. Jane Misihairabgwi, E-mail: jmisihairabgwi@unam.na

Holders of this qualification should be able to:

- Appraise fundamental concepts and principles of the biomedical sciences.
- Conceive, plan, and execute original, independent research projects that make substantial contributions to the body of knowledge within their chosen biomedical sciences subfield.
- Develop expertise and proficiency in a chosen subfield of biomedical sciences, being recognized internationally for their depth and breadth of knowledge.
- Develop novel methods, techniques, or technologies tailored to the field of specialization.
- Effectively disseminate scientific research findings and concepts to diverse audiences through clear and articulate communication channels.
- Apply advanced creative, critical thinking, and problem-solving skills to address significant challenges within their selected subfield of biomedical sciences, generating innovative solutions.
- Employ relevant statistical methodologies and advanced software tools to analyse and interpret data sets, ensuring rigor and accuracy in research outcomes.
- Champion and adhere to high standards of biomedical research ethics, maintaining integrity, transparency, and professionalism throughout all stages of research and scholarly endeavours

Career opportunities

- Academia
- Researcher (diagnostic and analytical laboratories)
- Quality assurance analysts in biomedical institutes
- Science writing and data communication
- Laboratory technologists in fields such as higher learning institutions and research laboratories
- Innovators/Entrepreneurs
- Positions in various industrial sectors (e.g. Health, Food, Water, Agriculture, Environment), government and non-governmental organizations
- Consultants/Advisors

Criteria for admission

Candidates are eligible for admission to this program if they meet the following criteria:

- Possess an NQF level 9 MSc or MPhil degree in Biomedical sciences relevant discipline/field of choice as indicated under aims and objectives section, or an equivalent relevant qualification from a recognized institution.

- Applicants with foreign qualifications must submit a certificate of evaluation from the Namibia Qualifications Authority (NQA).
- Exhibit evidence of conducting supervised research at the Masters level.
- Satisfy the General Admission Criteria for Postgraduate Programs outlined in the University of Namibia Higher Degrees policy and General Information and Regulations.
- Along with the application, candidates need to submit a detailed research proposal highlighting their proposed area of research, objectives, methodology and a review of existing literature. The research proposal will be evaluated for relevance, novelty, feasibility and availability of a supervisor. As per Section B. 3.3. of the Higher Degrees Policy Procedures, Rules and Regulations, the Department reviews the submitted concept note and identifies potential supervisor(s) and recommends the applicant for admission through the Admission and Examination Board, considering the applicant's fulfilment of the minimum admission requirements, availability of supervisors and space. As such, Departments shall not recommend students for higher degrees' admission if they do not have the capacity to supervise. The University encourages co-supervision with academic staff members from within the University or other universities as well as industry where specialised knowledge is required, but the main supervisor should be based at UNAM.

Requirements for qualification award

This qualification will be awarded to candidates credited with a minimum of 376 credits, and who have met all the requirements of the degree programme.

First Year Level

Subject	*Modules*	Credits
DPhil at first year level	1	360
Unam Core	1	16
Total	**2**	**376**

Students take all modules below relevant to their discipline			
Disciplines	**Module Code**	**Course Title**	**Compulsory (C)/Elective (E)**
All discipline	U6989LA	Academic Literacy For Postgraduate Students	C
DPhil Biomedical Sciences (Anatomy)	M7083BA	DPhil Thesis (Anatomy)	C
DPhil Biomedical Sci (Med Biochemistry)	M7083BB	DPhil Thesis (Medical Biochemistry)	C
DPhil Biomedical Sciences (Physiology)	M7083BH	DPHIL THESIS (PHYSIOLOGY)	C
DPhil Biomedical Sci (Med Microbiology)	M7083BM	DPHIL THESIS (MEDICAL MICROBIOLOGY)	C
DPhil Biomedical Sciences (Pathology)	M7083BP	DPHIL THESIS (PATHOLOGY)	C