DUT

DURBAN
UNIVERSITY OF
TECHNOLOGY

FACULTY OF
HEALTH
SCIENCES

2018 HANDBOOK
EMERGENCY MEDICAL CARE &
RESCUE

HANDBOOK FOR 2018

FACULTY OF HEALTH SCIENCES

DEPARTMENT of EMERGENCY MEDICAL CARE and RESCUE

What is a University of Technology?
A university of technology is characterized by being research informed rather than research driven where the focus is on strategic and applied research that can be translated into professional practice. Furthermore, research output is commercialized thus providing a source of income for the institution. Learning programmes, in which the emphasis on technological capability is as important as cognitive skills, are developed around graduate profiles as defined by industry and the professions.

IMPORTANT NOTICES
The rules in this departmental handbook must be read in conjunction with the General Rules (G Rules) contained in the DUT General Handbook for Students as well as the relevant subject Study Guides.

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

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

FACULTY of HEALTH SCIENCES
FACULTY VISION, MISSION, GOALS & VALUES
(November 2012 for 2013-2017)

Vision:

Our vision is to be a leading Faculty in transformative and innovative education for health professionals, guided by National imperatives and a strong commitment to socially responsive education.   We will strive for excellence in professional and teaching scholarship, as well as in the development of National and global linkages in education, and in the research and development of health.

Mission Statement:

Within a values-driven student-centered ethos, the Faculty is committed to developing quality health professionals that are practice-oriented, receptive and responsive to the health care needs of the people of South Africa, and of Africa as a whole.   This will be achieved by providing the highest standards of learning, teaching, research, and community engagement, underpinned by a commitment to creating space for students and staff to succeed.

Goals

The Faculty aims to:

1. Respond to the National health human resource and industry needs within the health sector.
2. Ensure the offering of entrepreneurial and leadership skills as a core component of all programmes within the Faculty of Health Sciences.
3. Continue to develop community-based projects to foster social responsibility through collaborative projects between programmes.
4. Enhance established quality management frameworks to support teaching and learning.
5. Develop applied research responsive to community and industry needs.
6. Develop mechanisms for the dissemination and application of research outcomes to inform teaching and learning, assessment, community engagement and further research.
7. Improve research participation and output through increased post-graduate student enrolment, publications and establishment of research groups.
8. Enable the generation of third-stream income through research and innovation (patents / artifacts) in order to supplement existing sources of income for the next five years.
9. Attract and retain diverse quality staff, while promoting advancement of individual potential.
10. Position DUT Health Sciences nationally

Values

The Faculty is guided by the following core values:

1. Transparency, openness, honesty, and shared governance.
2. Professional and personal respect for others.
3. Educational relevance, equity and transformation (curriculum, access and success).
4. Loyalty, accountability, dignity and trust.

DEPARTMENTAL VISION, MISSION & GOALS

Vision:
To be a student-centred department that advances emergency medical care through excellence in education and research.

Mission:
To excel in education and research by:

Providing
- Evidence based education in emergency medical care, and

Promoting
- A values driven ethos,
- Sustainable partnerships with industry, the community and society
- Research in emergency medical care, and

Empowering
- Staff and students to succeed, and
- Ensuring departmental sustainability.

Goals
The Department aims to:

1. Improve the quality of learning, teaching and assessment
2. Promote research
3. Facilitate community engagement
4. Develop clinical practice / operations
5. Ensure staff development
6. Ensure financial viability and sustainability
7. Foster efficient administration
8. Promote transformation and equity

1.   CONTACT DETAILS

All departmental queries to:

Secretary:	Mrs Leigh Meyers
Tel No:	(031)-3735203
Fax No:	(031)-3735201
Email:	leighm@dut.ac.za
Location of Department	cnr Ritson & St Thomas Roads; Ritson Road Campus

All Faculty queries to:

Faculty officer (Acting):	Ms Phindokuhle Khoza
Tel No:	(031)-3732446
Fax No:	(031)-3732407
Email:	nonkululekok@dut.ac.za
Location:	Health Faculty Office, Gate 8, Steve Biko Road, Mansfield Site Area, Ritson Campus

Executive Dean:	Professor N Sibiya
Executive Dean's Secretary	Mrs Bilkish Khan
Tel No:	(031)-3732704
Fax No:	(031)-3732620
Email:	bilkishk@dut.ac.za
Location:	Executive Dean's Office, 8, Steve Biko Road, Mansfield Site Area, Ritson Campus

2. STAFFING

	Name and Qualification
Head of Department	Mr S Sobuwa, ND: Emergency Medical Care (CPUT); B Tech: Emergency Medical Care (CPUT); MSc: (Med) Emergency Medicine (UCT); HD: Higher Education and Training (CPUT)
Lecturers	Mr S Naguran, ND: Ambulance and Emergency Care (DUT); B Tech: Emergency Medical Care (DUT); M Tech: Emergency Medical Care (DUT)
	Mrs D Mühlbauer, ND: Emergency Medical Care (UJ); B Tech: Emergency Medical Care (UJ); M Tech: Emergency Medical Care (DUT)
	Dr P Govender, ND: Emergency Medical Care (DUT); B Tech: Emergency Medical Care (DUT); M Tech: Emergency Medical Care (DUT), PhD Emergency Medicine (UCT)
Junior Lecturers	Ms Fathima Shaik, BHSc Emergency Medical Care (DUT)
	Mr Keanan Reynolds, B Tech: Emergency Medical Care (UJ)
	Mr Ntuthuko Chule, BHSc Emergency Medical Care (DUT)
Technician	Mr T Trower, ND: Emergency Medical Care (DUT); B Tech: Emergency Medical Care (DUT)
Clinical Tutor	Mrs F Tsiri, ND: Emergency Medical Care (DUT); B Tech: Emergency Medical Care (DUT)
Secretary	Mrs L Meyers, ND: Office Management and Technology (DUT); B Tech: Office Management and Technology (DUT)

3. DEPARTMENTAL INFORMATION AND RULES

3.1 Qualifications offered by the department

Learning programmes are offered in this Department that will, upon successful completion, lead to the award of the following qualifications:

Qualification	Qualification Code	Important Dates	SAQA NLRD Number
BHSc: Emergency Medical Care	BHEMC3		74471
BHSc: Emergency Medical Care	BHEMC1	Phasing out	74471
MHSc: Emergency Medical Care	MHEMC1		57209
BTECH: Emergency Medical Care	BTEMC1	Teach out 2019	63129
DPhil: Emergency Medical Care	DPEMC1		90818

3.2 Departmental information
3.2.1 Academic Integrity

Please refer to the General Rules pertaining to academic integrity G13 (1)(0). These will be enforced wherever necessary to safeguard the worthiness of our qualifications, and the integrity of the Faculty of Health Sciences at the DUT.

3.2.2 *Code of Conduct for Students*

Students must comply with the departmental student code of conduct at all times.

3.2.3 *Attendance*

Please refer to student code of conduct

3.2.4 *Health and Safety*

Students must adhere to all Health and Safety regulations while at DUT, during Medical Rescue training and while undertaking Clinical Practice.   Failure to do so will be treated as a breach of the disciplinary code of conduct.

3.2.5 *Registration with the HPCSA: Professional Board for Emergency Care*

Within two weeks of registration with the Department, students are required to register with the HPCSA: Professional Board for Emergency Care as an ECP student.

3.3 Departmental rules
3.3.1 *Special Tests and Condonement*

No missed assessments will be condoned.

- If a student misses an assessment for reasons of illness, a special assessment may be granted if the student provides a valid medical certificate specifying the nature and duration of the illness, and a declaration that for health reasons it was impossible for the student to sit for the assessment.   This certificate must be submitted to the Head of Programme no later than five (5) working days after the "fit for duty" date on the medical certificate.

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

SECTION A: UNDERGRADUATE QUALIFICATION

4. BACHELOR OF HEALTH SCIENCES: EMERGENCY MEDICAL CARE (BHEMC3)

4.1 Programme Information

This qualification has been designed as a four-year professional BHSc degree as mandated by the Health Professions Council of South Africa: Professional Board of Emergency Medical Care that will lead to professional registration as an Emergency Care Practitioner.

4.2 Assessment and Moderation

The continuous (ongoing) assessment method is used for all subjects in the programme. As such, there are no final examinations. The results for these subjects are determined through a weighted combination of assessments, which includes theory, practical and Viva Voce assessments; individual and group assignments/projects; written and oral presentations; portfolios and OSCEs. Students are encouraged to work steadily through the period of registration in order to achieve the highest results possible. Assessments are listed under each subject at the back of this handbook. Moderation follows the DUT assessment policy and assessment guidelines. Detailed information can be found in the relevant subject study guides.

4.3 LEARNING PROGRAMME - STRUCTURE

Codes	Modules:	Year of Study	Assessment Type (CA/E)	SAQA Credits	Pre-requisite subjects	Co-requisite subjects
BACHELOR OF HEALTH SCIENCES IN EMERGENCY MEDICAL CARE						
Year One						
EMCT101	Emergency Medical Care Theory 1	1	CA	16	None	None
EMCP101	Emergency Medical Care Practical 1	1	CA	16	None	None
CNLP101	Clinical Practice 1	1	CA	20	None	None
AAMY101	Anatomy 1	1	CA	16	None	None
PHSL101	Physiology 1	1	CA	16	None	None
PHIS101	Physics	1	CA	8	None	None
CSTY101	Chemistry	1	CA	8	None	None
CSTN101	Cornerstone	1	CA	12	None	None
PHYP101	Physical Preparedness 1	1	CA	4	None	None
FNPP101 OR PFDV101	Faculty Gen Ed modules: Foundations of Professional Practice 1 OR Personal and Professional Development 1	1 1	CA CA	12 12	None None	None None
Year Two						
DGST101	Diagnostics	2	CA	8	Emergency Medical Care Theory 1 Emergency Medical Care Practical 1 Clinical Practice 1	None

ERTA201	Emergency Medical Care Theory IIA	2	CA	8	Physiology I Anatomy I Emergency Medical Care Theory I Emergency Medical Care Practical I Clinical Practice I	None
ERTB201	Emergency Medical Care Theory IIB	2	CA	8	Physiology I Anatomy I Emergency Medical Care Theory I Emergency Medical Care Practical I Clinical Practice I	None
ERPA201	Emergency Medical Care Practical IIA	2	CA	16	Physiology I Anatomy I Emergency Medical Care Theory I Emergency Medical Care Practical I Clinical Practice I	None
ERPB201	Emergency Medical Care Practical IIB	2	CA	16	Physiology I Anatomy I Emergency Medical Care Theory I Emergency Medical Care Practical I Clinical Practice I	None
CLPA201	Clinical Practice IIA	2	CA	8	Physiology I Anatomy I Emergency Medical Care Theory I Emergency Medical Care Practical I Clinical Practice I	None
CLPB201	Clinical Practice IIB	2	CA	12	Physiology I Anatomy I Emergency Medical Care Theory I Emergency Medical Care Practical I Clinical Practice I	None
MDRA101	Medical Rescue IA	2	CA	4	Physical Preparedness I Clinical Practice I Emergency Medical Care Practical I Emergency Medical Care Theory I	None
MDRB101	Medical Rescue IB	2	CA	4	Physical Preparedness I Clinical Practice I Emergency Medical Care Practical I Emergency Medical Care Theory I	None
MDRC101	Medical Rescue IC	2	CA	4	Physical Preparedness I Clinical Practice I Emergency Medical Care Practical I Emergency Medical Care Theory I	None

MDRD101	Medical Rescue ID	2	CA	4	Physical Preparedness I Clinical Practice I Emergency Medical Care Practical I Emergency Medical Care Theory I	None
PSYA201	Physiology IIA	2	CA	12	Physiology I and Anatomy I	None
PSYB201	Physiology IIB	2	CA	8	Physiology I and Anatomy I	None
PHMA101	Pharmacology 1A	2	CA	8	Physiology I Emergency Medical Care Theory I Emergency Medical Care Practical I Clinical Practice I	None
PHMB101	Pharmacology 1B	2	CA	8	Pharmacology 1A	None
PHYP201	Physical Preparedness II	2	CA	4	Physical Preparedness I	None
EMDL101 PFDV201	Faculty Gen Ed modules: Ethics and Medical Law OR Personal and Professional Development II	2 2	CA CA	12 12	None Personal and Professional Development I	None None
HCDK101	HIV and Communicable Diseases in KZN	2	CA	8	None	None
			Year Three			
ERTA301	Emergency Medical Care Theory IIIA	3	CA	8	Emergency Medical Care Theory IIA and IIB Emergency Medical Care Practical IIA and IIB Clinical Practice IIA and IIB Physiology IIA and IIB	None
ERTB301	Emergency Medical Care Theory IIIB	3	CA	8	Emergency Medical Care Theory IIA and IIB Emergency Medical Care Practical IIA and IIB Clinical Practice IIA and IIB Physiology IIA and IIB	None
ERPA301	Emergency Medical Care Practical IIIA	3	CA	8	Emergency Medical Care Theory IIA and IIB Emergency Medical Care Practical IIA and IIB Clinical Practice IIA and IIB Physiology IIA and IIB	None
ERPB301	Emergency Medical Care Practical IIIB	3	CA	8	Emergency Medical Care Theory IIA and IIB Emergency Medical Care Practical IIA and IIB Clinical Practice IIA and IIB Physiology IIA and IIB	None
CLPA301	Clinical Practice IIIA	3	CA	12	Emergency Medical Care Theory IIA and IIB Emergency Medical Care Practical IIA and IIB Clinical Practice IIA and IIB	None

CLPB301	Clinical Practice IIIB	3	CA	12	Emergency Medical Care Theory IIA and IIB Emergency Medical Care Practical IIA and IIB Clinical Practice IIA and IIB	None
MDRA201	Medical Rescue IIA	3	CA	4	Physical Preparedness II Emergency Medical Care Theory IIA and IIB Emergency Medical Care Practical IIA and IIB Clinical Practice IIA and IIB Medical Rescue IA, IB, IC and ID	None
MDRB201	Medical Rescue IIB	3	CA	4	Physical Preparedness II Emergency Medical Care Theory IIA and IIB Emergency Medical Care Practical IIA and IIB Clinical Practice IIA and IIB Medical Rescue IA, IB, IC and ID	None
MDRC201	Medical Rescue IIC	3	CA	4	Physical Preparedness II Emergency Medical Care Theory IIA and IIB Emergency Medical Care Practical IIA and IIB Clinical Practice IIA and IIB Medical Rescue IA, IB, IC and ID	None
MDRD201	Medical Rescue IID	3	CA	4	Physical Preparedness II Emergency Medical Care Theory IIA and IIB Emergency Medical Care Practical IIA and IIB Clinical Practice IIA and IIB Medical Rescue IA, IB, IC and ID	None
GPTA101	General Pathology IA	3	CA	8	Emergency Medical Care Theory IIA and IIB Emergency Medical Care Practical IIA and IIB Clinical Practice IIA and IIB Physiology IIB	None
GPTB101	General Pathology IB	3	CA	8	General Pathology IA	None
RSHM101	Research Methodology	3	CA	8	None	None
RPSL101	Research Proposal	3	CA	8	Research Methodology	None
PHYP301	Physical Preparedness III	3	CA	4	Physical Preparedness II	None
CMEP101	Community Engagement Project	3	CA	8	None	None
EDTC102	Faculty Gen Ed modules: Educational Techniques OR	3	CA	12	None	None
PFDV301	Personal Professional Development III	3	CA	12	Personal Professional Development II	None

					Year Four		
ERTA401	Emergency Medical Care Theory IVA	4	CA	8	Emergency Medical Care Theory IIIA & IIIB Emergency Medical Care Practical IIIA & IIIB Clinical Practice IIIA & IIIB General Pathology IB	None
ERTB401	Emergency Medical Care Theory IVB	4	CA	8	Emergency Medical Care Theory IIIA & IIIB Emergency Medical Care Practical IIIA & IIIB Clinical Practice IIIA & IIIB General Pathology IB	None
ERPA401	Emergency Medical Care Practical IVA	4	CA	8	Emergency Medical Care Theory IIIA & IIIB Emergency Medical Care Practical IIIA & IIIB Clinical Practice IIIA & IIIB General Pathology IB	None
ERPB401	Emergency Medical Care Practical IVB	4	CA	8	Emergency Medical Care Theory IIIA & IIIB Emergency Medical Care Practical IIIA & IIIB Clinical Practice IIIA & IIIB General Pathology IB	None
CLPA401	Clinical Practice IVA	4	CA	12	Emergency Medical Care Theory IIIA & IIIB Emergency Medical Care Practical IIIA & IIIB Clinical Practice IIIA & IIIB General Pathology IB	None
CLPB401	Clinical Practice IVB	4	CA	16	Emergency Medical Care Theory IIIA & IIIB Emergency Medical Care Practical IIIA & IIIB Clinical Practice IIIA & IIIB General Pathology IB	None
MDRA301	Medical Rescue IIIA	4	CA	4	Physical Preparedness III Emergency Medical Care Theory IIIA & IIIB Emergency Medical Care Practical IIIA & IIIB Clinical Practice IIIA & IIIB Medical Rescue IIA, IIB, IIC and IID	None
MDRB301	Medical Rescue IIIB	4	CA	4	Physical Preparedness III Emergency Medical Care Theory IIIA & IIIB Emergency Medical Care Practical IIIA & IIIB Clinical Practice IIIA & IIIB Medical Rescue IIA, IIB, IIC and IID	None

Code	Module		Assessment	Credits	Prerequisites	Co-requisites
MDRC301	Medical Rescue IIIC	4	CA	4	Physical Preparedness III Emergency Medical Care Theory IIIA & IIIB Emergency Medical Care Practical IIIA & IIIB Clinical Practice IIIA & IIIB Medical Rescue IIA, IIB, IIC and IID	None
MDRD301	Medical Rescue IIID	4	CA	4	Physical Preparedness III Emergency Medical Care Theory IIIA & IIIB Emergency Medical Care Practical IIIA & IIIB Clinical Practice IIIA & IIIB Medical Rescue IIA, IIB, IIC and IID	None
RPJT101	Research Project IV	4	CA	20	Research Proposal	None
Wwrk101	World of Work	4	CA	8	None	None
	Faculty Gen Ed modules:					
MNTP101	Management Practice OR	4	CA	12	None	None
PFDV401	Personal and Professional Development IV	4	CA	12	Personal and Professional Development III	None
PHLC101	Primary Health Care I	4	CA	12	Emergency Medical Care Theory IIIA & IIIB Emergency Medical Care Practical IIIA & IIIB Clinical Practice IIIA & IIIB	None
PHYP401	Physical Preparedness IV	4	CA	4	Physical Preparedness III	None

4.4   Programme Rules
4.4.1   Minimum Admission Requirements

To register for the BHSc: Emergency Medical Care the applicant must have a minimum of **30 points** (not including Life Orientation).

The applicant must pass the following departmental evaluations:
o   Medical Fitness Evaluation
o   Physical Fitness Evaluation
o   Environmental

In addition, Placement test/s will be conducted and will be used for general academic information

The minimum admission requirement for holders of the National Senior Certificate (NSC) with a Bachelor Degree endorsement must include the following subjects at the stated ratings.

Compulsory Subjects	NSC Rating
English	4
Mathematics	4
Life Science and / or Physical Science	4

The minimum admission requirement for holders of the Senior Certificate (SC) is matriculation exemption with the following subjects at the stated ratings.

Compulsory Subjects	HG	SG
English	D	B
Mathematics	D	B
Biology AND / OR Physical Sciences	D	B

4.4.2 Selection Criteria

Acceptance into the programme is limited to 30 places. As more qualifying applications are received than can be accommodated, the following selection process will determine placement in the programme:

- All applicants must apply through the Central Applications Office (CAO).
- Initial shortlisting for selection is based on the applicant's academic performance in Grade 12 (Grade 11, or Grade 12 trial marks, will be used for current matriculants).
- CAO applications that meet the minimum admission requirement will be invited to undergo physical fitness and medical assessments.
- Applicants are required to write a placement test.
- Provisional acceptance is given to selected applicants awaiting National Senior Certificate (NSC) results. If the final Grade 12 NSC results do not meet the minimum entrance requirements, this provisional acceptance will be withdrawn.
- Applicants whose application has been declined due to poor academic achievement in Grade 11 may reapply to the programme should they be able to show improved academic performance in the final Grade 12 examinations. Those applicants who wish to reapply should immediately notify the programme of their intention to reapply. In order for the application to be reconsidered, the applicant must submit the final Grade 12 results to the Department as soon as these results are available.

4.4.3 Pass Requirements

Students are encouraged to apply themselves to their learning, and strive for the best academic results possible in order to adequately prepare themselves for their future careers, and to maximize possible employment opportunities. The BHSc: Emergency Medical Care mainly comprises of modules with no final examination. As such pass requirements are as follows (as applicable):

1. The Module mark will comprise of all the marks generated during the course of the Module, in the ratio specified in the Study Guide.
2. A minimum of 50% is required to pass the Module.
3. As rescue skills are performed on real patients, in the real world setting, a sub-minimum of 100% will apply to all OSCE evaluations (i.e. all levels of Medical Rescue Modules).

4. A sub-minimum of 50% is required for the theory component of all Modules.
5. A sub-minimum of 50% is required for the practical component of all Modules.

4.4.4 Re-registration Rules
The following programme rules apply,
1. A student returning to the programme after a break of one year or longer will be required to pass the medical and physical fitness evaluations before re-admission is allowed.
2. Students who are absent from group evaluations will be required to complete these evaluations in the following registration period.
3. A student must be successful in a Module at the lower level before progressing to the next level.

4.4.5 Exclusion Rules
The following applies:
A first year student who fails three (3) or more Modules with a combined final mark average of less than 40% is not permitted to re-register in the Department of Emergency Medical Care and Rescue.

4.4.6 Interruption of Studies
With reference to a Bachelor's Degree at NQF Level 8, the minimum duration for this programme will be four (4) years of registered study and the maximum duration will be six (6) years of registered study, including any periods of Clinical Practice. Should a student interrupt their studies by more than three (3) years, the student will need to apply to the department for permission to reregister, will need to prove currency of appropriate knowledge prior to being given permission to reregister and pass the departmental medical and physical evaluations.

4.4.7   Subject content

Subject Name (code)	Learning areas / content	Assessment Plan
Year 1		
FACULTY GEN ED MODULES: FOUNDATIONS OF PROFESSIONAL PRACTICE (FNPP101)	Principles of Primary Health Care Social Determinants of Health Healthcare in South Africa National Health Insurance National Core Standards Role of Professional Bodies and Associations in Health Care Continuous Professional Development for Health Care Professionals Professionalism Improving system Quality	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
OR	OR	
PERSONAL AND PROFESSIONAL DEVELOPMENT I (PFDV101)	Reflective journaling around predefined themes Computer skills Identity development and intrapersonal skills and self-awareness Basic elements of Writing Techniques for oral presentations Methods and processes for participating in Meetings & Committees	Reflective journal 100%
CORNERSTONE 101 (CSTN101)	Proficiency and Competencies Innovation Social Responsibility Personal Development	A weekly blog written by Each Student 20% Tutorial attendance 10% Visual artefact 15% Written report 30% Oral presentation 15% Peer assessment 10%
EMERGENCY MEDICAL CARE I THEORY (EMCT101)	Introduction to Emergency Care Basic Airway Management Oxygenation and Ventilation Cardiopulmonary Resuscitation Defibrillation Patient Assessment Shock	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
EMERGENCY MEDICAL CARE I PRACTICAL (EMCP101)	Introduction to Emergency Care Basic Airway Management Oxygenation and Ventilation Cardiopulmonary Resuscitation Defibrillation Patient Assessment Shock	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
ANATOMY I (AAMY101)	Anatomical Terminology Thorax Abdomen & Pelvis Limb and Back Anatomy Neuroanatomy Head and Neck Anatomy	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
PHYSIOLOGY I (PHSL101)	Cells and tissues Integumentary system Muscular system Skeletal system Nervous system Special senses Endocrine system Cardiovascular system Immunity and the Lymphatic system Blood	This module is based on continuous assessment. Please refer to the module study guide for assessment details.

	Respiratory system Digestive system Urinary system Reproductive system	
CHEMISTRY (CSTY101)	Introduction to chemistry Measurements Energy and Matter Atoms and Elements Compounds and their bonds Chemical Reactions and Quantities Gases Solutions Acids and Bases Nuclear Radiation Alkanes and Cycloalkanes Unsaturated hydrocarbons Organic Compounds with Oxygen and Sulphur Carboxylic acid and Esters Amines and Amides	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
PHYSICS I (PHIS101)	MECHANICS Fundamental Units & Dimensional Analysis Vectors and Scalars One Dimension Kinematics Newton's Laws of Motion Work, Energy & Power Impulse and Momentum Rotational Dynamics PROPERTIES OF MATTER Phases of Matter Elasticity Density and Specific Gravity Pressure in Fluids Atmospheric Pressure and Gauge Pressure Pascal's Principle Buoyancy and Archimedes' Principle Surface Tension Capillary Action Viscosity Poiseuille's Law	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
PHYSICAL PREPAREDNESS I (PHYP101)	Physical strength Endurance Speed Cardiovascular fitness Body weight Power to weight ratio Introduction to swimming	200m swim 5km run PFT Flexed Arm Hang Test There will be four assessments scheduled throughout the academic year and they will be weighted as follows: Assessment 1 (Weighting .0.1) – End of term 1 Assessment 2 (Weighting .0.2) – End of term 2 Assessment 3 (Weighting .0.3) – End of term 3 Assessment 4 (Weighting .0.4) – End of term 4
CLINICAL PRACTICE I (CNLP101)	Emergency Medical Service (EMS) operational systems Professional practice Emergency medical care Documentation and record keeping Transportation of the ill/injured patient	This module is based on continuous assessment. Please refer to the module study guide for assessment details.

Year 2		
FACULTY GEN ED MODULES:		
ETHICS AND MEDICAL LAW (EMDL101)	Professional ethics International ethics principles Professional body and National Health requirements Scope of practice Multidisciplinary and interdisciplinary interactions Legal aspects of medical care Applications in authentic settings	Theory tests 60% Projects/Case Studies/ Assignments 40%
OR	OR	
PERSONAL AND PROFESSIONAL DEVELOPMENT II (PFDV201)	Revision of the basic elements of Writing Intermediate elements of Writing Effective communication and self-expression Community project	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
HIV AND COMMUNICABLE DISEASES IN KZN (HCDK101)	Epidemiology of HIV, TB and STIs globally, in sub-Saharan Africa, South Africa and KZN HIV infection, transmission and prevention Psychological issues of HIV and TB Module structured around themes: Stigma Disclosure Rights Communication Facilitation Advocacy	E-learning activities 30% Critical reflective diary 20% Community report 50%
DIAGNOSTICS (DGST101)	Patient interaction and history taking General survey and vital signs The Skin Head and neck Thorax and lungs Cardiovascular system Breast and Axillae The Abdomen The male genitalia and hernias The female genitalia The pregnant women The anus, rectum and prostate The peripheral nervous system The musculoskeletal system The nervous system Assessment of children and adolescents	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
EMERGENCY MEDICAL CARE THEORY IIA (ERTA201)	Advanced Airway Management I Cardiovascular Emergencies	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
EMERGENCY MEDICAL CARE THEORY IIB (ERTB201)	Trauma Emergencies II Behavioural Emergencies	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
EMERGENCY MEDICAL CARE PRACTICAL IIA (ERPA201)	Advanced Airway Management I Cardiovascular Emergencies	This module is based on continuous assessment. Please refer to the module study guide for assessment details.

EMERGENCY MEDICAL CARE PRACTICAL IIB (ERPB201)	Trauma Emergencies II Behavioural Emergencies	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
MEDICAL RESCUE IA (MDRA101)	Rope rescue techniques Physics applied to rope rescue Incident Management Systems – tactical level	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
MEDICAL RESCUE IB (MDRB01)	Scene and vehicle stabilization, extrication techniques, patient management and removal	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
MEDICAL RESCUE IC (MDRC101)	Introduction to fire, search and rescue	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
MEDICAL RESCUE ID (MDRD101)	Introduction to industrial and agricultural rescue	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
PHYSIOLOGY IIA (PSYA201)	The Cardiovascular System and Blood The Respiratory Physiology Urinary System	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
PHYSIOLOGY IIB (PSYB201)	Nervous System Special senses Endocrine System Reproduction	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
PHARMACOLOGY IA (PHMA101)	General aspects of drug therapy Pharmacokinetics Pharmacodynamics Administration of drugs to patients Adverse effects of drugs Autonomic, somatic and sensory nervous systems Analgesics and anti-inflammatories	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
PHARMACOLOGY IB (PHMB101)	Antimicrobials and other anti-infectives Drugs affecting the CNS Drugs affecting the CVS Haemopoetic drugs Hormones and Hormone antagonists Antihistamines Respiratory Drugs GIT Drugs Poisoning and emergency drug treatment	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
CLINICAL PRACTICE IIA (CLPA201)	Emergency medical service operational systems Professional practice Emergency medical care Coronary Care Intensive Care Documentation and record keeping Transportation of the ill/injured patient	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
CLINICAL PRACTICE IIB (CLPB201)	Emergency medical service operational systems Professional practice Emergency medical care Coronary Care Intensive Care	This module is based on continuous assessment. Please refer to the module study guide for assessment details.

	Documentation and record keeping Transportation of the ill/injured patient	
PHYSICAL PREPAREDNESS II (PHYP201)	Physical strength Endurance Speed Cardiovascular fitness Body weight Power to weight ratio Introduction to swimming	200m swim 5km run PFT Flexed Arm Hang Test There will be four assessments scheduled throughout the academic year and they will be weighted as follows: Assessment 1 (Weighting .0.1) – End of term 1 Assessment 2 (Weighting .0.2) – End of term 2 Assessment 3 (Weighting .0.3) – End of term 3 Assessment 4 (Weighting .0.4) – End of term 4
Year 3		
FACULTY GEN ED MODULES: EDUCATIONAL TECHNIQUES (EDTC102)	Introduction to education techniques Learning theories Facilitation and communication skills Learning programme planning Learner motivation and engagement Learning material Assessment and moderation Management E-learning and Blackboard Quality assurance	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
OR PERSONAL PROFESSIONAL DEVELOPMENT III (PFDV301)	OR Community project (groups of 4)	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
COMMUNITY ENGAGEMENT PROJECT (CMEP101)	The principles of community engagement Working in groups (being an effective team player) Guidelines for undertaking a community engagement project The community as a main factor in community engagement Skills for community engagement Ethical issues in community engagement Planning a community engagement project Implementing a community engagement project Evaluating a community engagement project	Project portfolio 50% Presentation 50%
EMERGENCY MEDICAL CARE THEORY IIIA (ERTA301)	Advanced Airway Management II Mechanical Ventilation Respiratory Emergencies	This module is based on continuous assessment. Please refer to the module study guide for assessment details.

EMERGENCY MEDICAL CARE THEORY IIIB (ERTB301)	Endocrine Emergencies Toxicology Gastroenterology Urology	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
EMERGENCY MEDICAL CARE PRACTICAL IIIA (ERPA301)	Advanced Airway Management II Mechanical Ventilation Respiratory Emergencies	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
EMERGENCY MEDICAL CARE PRACTICAL IIIB (ERPB301)	Endocrine Emergencies Toxicology Gastroenterology Urology	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
MEDICAL RESCUE IIA (MDRA201)	Rope rescue techniques Patient management and removal Introduction to the Incident Management System (IMS)	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
MEDICAL RESCUE IIB (MDRB201)	Introduction to Aviation Rescue	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
MEDICAL RESCUE IIC (MDRC201)	Introduction to the wilderness environment Camp craft Navigation and survival techniques	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
MEDICAL RESCUE IID (MDRD201)	Aquatic rescue which consists of the following components: surface water rescue, swift water rescue and small boat handling	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
GENERAL PATHOLOGY IA (GPTA101)	Introduction to pathology and disease Disease at cellular level: cell injury, death, necrosis Amyloid Calcification Pigmentation Jaundice Fluid disturbances (oedema and electrolyte imbalances) Haemodynamic derangements (hyperaemia, congestion, haemorrhage, thrombosis, embolism, infarction)	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
GENERAL PATHOLOGY IB (GPTB101)	Inflammation, healing and repair Infection and disease Disorders of growth and neoplasia Disorders of Carbohydrate metabolism Nutritional disorders Effect of radiation Autoimmune disorders	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
RESEARCH METHODOLOGY I (RSHM101)	Introduction to research methodology Research and theory Ethical considerations in the conduct of health sciences research Overview of the research process Selecting or identifying research problems The literature review Refining and defining the research question or formulating a hypothesis and preparing a research proposal Quantitative research Non-traditional and qualitative research designs	This module is based on continuous assessment. Please refer to the module study guide for assessment details.

	Sampling Data collection Data quality Data analysis Research reports and report evaluation	
RESEARCH PROPOSAL (RPSL101)	Ethical considerations in the conduct of health sciences research Overview of the research process Selecting or identifying research problems The literature review Refining and defining the research question or formulating a hypothesis and preparing a research proposal Quantitative research Non-traditional and qualitative research designs Sampling Data collection Data quality Data analysis Research reports and report evaluation	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
CLINICAL PRACTICE IIIA (CLPA301)	Emergency medical service operational systems Professional practice Emergency medical care Coronary care Intensive care Theatre, advanced airway and peri-operative surgical care Documentation and record keeping Transportation of the ill/injured patient	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
CLINICAL PRACTICE IIIB (CLPB301)	Emergency medical service operational systems Professional practice Emergency medical care Coronary care Intensive care Theatre, advanced airway and peri-operative surgical care Documentation and record keeping Transportation of the ill/injured patient	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
PHYSICAL PREPAREDNESS III (PHYP301)	Physical strength Endurance Speed Cardiovascular fitness Body weight Power to weight ratio Introduction to swimming	200m swim 5km run PFT Flexed Arm Hang Test There will be four assessments scheduled throughout the academic year and they will be weighted as follows: Assessment 1 (Weighting .0.1) – End of term 1 Assessment 2 (Weighting .0.2) – End of term 2 Assessment 3 (Weighting .0.3) – End of term 3 Assessment 4 (Weighting .0.4) – End of term 4

Year 4		
FACULTY GEN ED MODULES: MANAGEMENT PRACTICE (MNTP101)	Principles of management New public sector management Managing equity in the health system Project management Organisational development and re-engineering the health system Managing for change in the health system Human resource management Strategic resource management Motivation and leadership	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
OR PERSONAL AND PROFESSIONAL DEVELOPMENT IV (PFDV401)	OR Life line counselling course Goal setting and personal organisation Introduction to Research writing	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
WORLD OF WORK (WWRK101)	Traditional and Modern CV Writing Job searching/applications/Interviewing Body language and Verbal communication Organisational Aspects Business Etiquette Project Management/Meetings Technical Report Writing Productivity/Quality/Health & Safety in the Workplace Computer and Technology Applications Interpersonal Skills Problem Identification & Solving Power & Conflict Management Planning	Written tests 60% Assignment (individual) 30% Class work: attendance; Graduate attributes 10%
EMERGENCY MEDICAL CARE THEORY IVA (ERTA402)	Neonatology Paediatrics	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
EMERGENCY MEDICAL CARE THEORY IVB (ERTB402)	Intensive Care Transfers Thrombolysis Aeromedical Care and Evacuation Gynaecology Obstetrics	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
EMERGENCY MEDICAL CARE PRACTICAL IVA (ERPA402)	Neonatology Paediatrics	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
EMERGENCY MEDICAL CARE PRACTICAL IVB (ERPB402)	Intensive Care Transfers Thrombolysis Aeromedical Care and Evacuation Gynaecology Obstetrics	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
RESEARCH PROJECT IV (RPJT102)	Planning a research proposal Conducting research Research ethics Writing a research article Oral defence of research Use of tables and figures in a research report Referencing	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
CLINICAL PRACTICE IVA (CLPA401)	Emergency medical service operational systems Professional practice Emergency medical care Coronary care	This module is based on continuous assessment. Please refer to the module study guide for assessment details.

	Intensive care Theatre, advanced airway and peri-operative surgical care Documentation and record keeping Transportation of the ill/injured patient	
CLINICAL PRACTICE IVB (CLPB401)	Emergency medical service operational systems Professional practice Emergency medical care Coronary care Intensive care Theatre, advanced airway and peri-operative surgical care Documentation and record keeping Transportation of the ill/injured patient	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
MEDICAL RESCUE IIIA (MDRA301)	Introduction to confined space rescue, confined space hazard control Atmospheric monitoring & ventilation, self-contained/supplied air breathing apparatus Patient management and removal, physics applied to confined space rescue	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
MEDICAL RESCUE IIIB (MDRB301)	Theory of trench rescue, trench rescue safety, trench incident management Patient management and removal, physics applied to trench rescue	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
MEDICAL RESCUE IIIC (MDRC301)	Overview of structural collapse rescue theory of emergency building shoring Structural collapse incident management, patient management and removal	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
MEDICAL RESCUE IIID (MDRD301)	Introduction to HazMat Rescue Properties of Hazardous Materials Personal Protective Equipment Recognition of Hazardous Materials Risk Assessment Incident Command Tactical and Defensive Control Strategies Decontamination	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
PRIMARY HEALTH CARE I (PHLC101)	Primary Health Care Approaches Health Care Systems National Health Insurance Patterns of Health Disease Health Promotion Social Determination of Health	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
PHYSICAL PREPAREDNESS IV (PHYP401)	Physical strength Endurance Speed Cardiovascular fitness Body weight Power to weight ratio Introduction to swimming	200m swim 5km run PFT Flexed Arm Hang Test There will be four assessments scheduled throughout the academic year and they will be weighted as follows: Assessment 1 (Weighting .0.1) – End of term 1 Assessment 2 (Weighting .0.2) – End of term 2 Assessment 3 (Weighting .0.3) – End of term 3 Assessment 4 (Weighting .0.4) – End of term 4

5. BACHELOR OF HEALTH SCIENCES: EMERGENCY MEDICAL CARE (BHEMC1) (Phasing out)

5.1 Programme Information

This qualification has been designed as a four-year professional BHSc degree as mandated by the Health Professions Council of South Africa: Professional Board of Emergency Medical Care that will lead to professional registration as an Emergency Care Practitioner.

5.2 Assessment and Moderation

The continuous (ongoing) assessment method is used for all subjects in the programme. As such, there are no final examinations. The results for these subjects are determined through a weighted combination of assessments, which includes theory, practical and Viva Voce assessments; individual and group assignments/projects; written and oral presentations; portfolios and OSCEs. Students are encouraged to work steadily through the period of registration in order to achieve the highest results possible. Assessments are listed under each subject at the back of this handbook. Moderation follows the DUT assessment policy and assessment guidelines. Detailed information can be found in the relevant subject study guides.

5.3 LEARNING PROGRAMME - STRUCTURE

Codes	Modules:	Year of Study	Assessment Type (CA/E)	SAQA Credits	Pre-requisite subjects	Co-requisite subjects
BACHELOR OF HEALTH SCIENCES IN EMERGENCY MEDICAL CARE						
Year One						
FDPP101	Foundations of Professional Practice I	1	CA	10	None	None
EMCA101	Emergency Medical Care IA	1	CA	15	None	Clinical Practice I
EMCB101	Emergency Medical Care IB	1	CA	15	None	Emergency Medical Care IA Clinical Practice I
MRSA101	Medical Rescue IA	1	CA	15		Medical Rescue IB
MRSB101	Medical Rescue IB	1	CA	15		Medical Rescue IA
ATPH102	Anatomy and Physiology I	1	CA	20	*None*	None
BSCN101	Basic Sciences I	1	CA	10	None	None
CNLP101	Clinical Practice I	1	CA	30	None	Emergency Medical Care IA & IB
Year Two						
EMCA201	Emergency Medical Care IIA	2	CA	15	Emergency Medical Care IA & IB Clinical Practice I Anatomy & Physiology I	Clinical Practice II
EMCB201	Emergency Medical Care IIB	2	CA	15	Emergency Medical Care IA and IB Clinical Practice I Anatomy & Physiology I	Emergency Medical Care IIA Clinical Practice II
MRSA201	Medical Rescue IIA	2	CA	15	Medical Rescue IA & IB	Medical Rescue IIB
MRSB201	Medical Rescue IIB	2	CA	15	Medical Rescue IA & IB	Medical Rescue IIA
PHYL201	Physiology II	2	CA	20	Anatomy and Physiology I	None

PHCL201	Pharmacology II	2	CA	20	Anatomy and Physiology I	None
CNLP201	Clinical Practice II	2	CA	30	Emergency Medical Care IA & IB and Clinical Practice I	Emergency Medical Care IIA & IIB
Year Three						
EMCA301	Emergency Medical Care IIIA	3	CA	15	Emergency Medical Care IIA & IIB and Clinical Practice II	Clinical Practice III
EMCB301	Emergency Medical Care IIIB	3	CA	15	Emergency Medical Care IIA & IIB and Clinical Practice II	Emergency Medical Care IIIA Clinical Practice III
MRSA301	Medical Rescue IIIA	3	CA	15	Medical Rescue IIA & IIB	Medical Rescue IIIB
MRSB301	Medical Rescue IIIB	3	CA	15	Medical Rescue IIA & IIB	Medical Rescue IIIA
GPTH201	General Pathology II	3	CA	20	Physiology II	None
RSMG102	Research Methodology I	3	CA	20	None	None
CNLP301	Clinical Practice III	3	CA	30	Emergency Medical Care IIA & IIB and Clinical Practice II	Emergency Medical Care IIIA & IIIB
Year Four						
EMCA402	Emergency Medical Care IVA	4	CA	15	Emergency Medical Care IIIA & IIIB and Clinical Practice III	Clinical Practice IV
EMCB402	Emergency Medical Care IVB	4	CA	15	Emergency Medical Care IIIA & IIIB and Clinical Practice III	Emergency Medical Care IVA Clinical Practice IV
RPJT402	Research Project IV	4	CA	30	Research Methodology I	None
MNGP102	Management Practice I	4	E	20	None	None
EDTC102	Educational Techniques I	4	CA	20	None	None
CNLP401	Clinical Practice IV	4	CA	30	Emergency Medical Care IIIA & IIIB and Clinical Practice III	Emergency Medical Care IVA & IVB

5.4 Programme Rules
5.4.1 *Minimum Admission Requirements*

To register for the BHSc: Emergency Medical Care the applicant must have a minimum of **30 points** (not including Life Orientation).

The applicant must pass the following departmental evaluations:

o   Medical Fitness Evaluation

o   Physical Fitness Evaluation

In addition, Placement test/s will be conducted and will be used for general academic information

The minimum admission requirement for holders of the National Senior Certificate (NSC) with a Bachelor Degree endorsement must include the following subjects at the stated ratings.

Compulsory Subjects	NSC Rating
English	4
Mathematics	4
Life Science and / or Physical Science	4

The minimum admission requirement for holders of the Senior Certificate (SC) is matriculation exemption with the following subjects at the stated ratings.

Compulsory Subjects	HG	SG
English	D	B
Mathematics	D	B
Biology AND / OR Physical Sciences	D	B

5.4.2 *Selection Criteria*

Acceptance into the programme is limited to 30 places.   As more qualifying applications are received than can be accommodated, the following selection process will determine placement in the programme:

- All applicants must apply through the Central Applications Office (CAO).
- Initial shortlisting for selection is based on the applicant's academic performance in Grade 12 (Grade 11, or Grade 12 trial marks, will be used for current matriculants).
- CAO applications that meet the minimum admission requirement will be invited to undergo physical fitness and medical assessments.
- Applicants are required to write a placement test.
- Provisional acceptance is given to selected applicants awaiting National Senior Certificate (NSC) results. If the final Grade 12 NSC results do not meet the minimum entrance requirements, this provisional acceptance will be withdrawn.
- Applicants whose application has been declined due to poor academic achievement in Grade 11 may reapply to the programme should they be able to show improved academic performance in the final Grade 12 examinations. Those applicants who wish to reapply should immediately

notify the programme of their intention to reapply. In order for the application to be reconsidered, the applicant must submit the final Grade 12 results to the Department as soon as these results are available.

5.4.3 Pass Requirements
Students are encouraged to apply themselves to their learning, and strive for the best academic results possible in order to adequately prepare themselves for their future careers, and to maximize possible employment opportunities. The BHSc: Emergency Medical Care mainly comprises of modules with no final examination. As such pass requirements are as follows (as applicable):
1. The Module mark will comprise of all the marks generated during the course of the Module, in the ratio specified in the Study Guide.
2. A minimum of 50% is required to pass the Module.
3. As rescue skills are performed on real patients, in the real world setting, a sub-minimum of 100% will apply to all OSCE evaluations (i.e. all levels of Medical Rescue Modules).
4. A sub-minimum of 50% is required for the theory component of all Modules.
5. A sub-minimum of 50% is required for the practical component of all Modules.

5.4.4 Re-registration Rules
The following programme rules apply,
1. A student returning to the programme after a break of one year or longer will be required to pass the medical and physical   fitness evaluations before re-admission is allowed.
2. Students who are absent from group evaluations will be required to complete these evaluations in the following registration period.
3. A student must be successful in a Module at the lower level before progressing to the next level.

5.4.5 Exclusion Rules
The following applies:
A first year student who fails three (3) or more Modules with a combined final mark average of less than 40% is not permitted to re-register in the Department of Emergency Medical Care and Rescue.

5.4.6 Interruption of Studies
With reference to a Bachelor's Degree at NQF Level 8, the minimum duration for this programme will be four (4) years of registered study and the maximum duration will be six (6) years of registered study, including any periods of Clinical Practice. Should a student interrupt their studies by more than three (3) years, the student will need to apply to the department for permission to reregister, will need to prove currency of appropriate knowledge prior to being given permission to reregister and pass the departmental medical and physical evaluations.

5.4.7 Subject content

Subject Name (code)	Learning areas / content	Assessment Plan
Year 1		
FOUNDATIONS OF PROFES-SIONAL PRACTICE (FDPP101)	• Academic skills, Computer literacy, • Introduction to the Emergency Medical Services (EMS) —Task level	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
EMERGENCY MEDICAL CARE 1 A (EMCA101)	• Introduction to Emergency Care, Basic and Intermediate life support for the adult patient • Integrated patient care	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
EMERGENCY MEDICAL CARE IB (EMCB101)	• Basic and intermediate life support for the obstetric, paediatric and newborn patient • Labour and delivery of the newborn • Integrated patient care	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
MEDICAL RESCUE IA (MRSA101)	• Introduction to fire, search and rescue • Scene stabilization, Vehicle stabilization Extrication techniques, patient management and removal	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
MEDICAL RESCUE IB (MRSB101)	• Theory of trench rescue, trench rescue safety, trench incident management • Patient management and removal, physics applied to trench rescue	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
ANATOMY AND PHYSIOL-OGY I (ATPH102)	• Introduction • Cells • Tissues • All body systems	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
BASIC SCIENCES I (BSCN101)	• CHEMISTRY: Introductory Concepts: the substances of Chemistry • Chemical bonds – bonding in compounds • Nomenclature • Basic chemical calculations and the mole concept • Types of chemical reactions • Balancing chemical equations • Using balanced chemical equations – reaction stoichiometry • Organic chemistry, radioactivity • PHYSICS: • Basics of physics • Mechanics • Hydrostatics	This module is based on continuous assessment. Please refer to the module study guide for assessment details.

	• Heat	
CLINICAL PRACTICE I (CNLP101)	• Emergency medical service operational systems • Professional practice • Emergency medical care • Documentation and record keeping	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
EMERGENCY MEDICAL CARE IIA (EMCA201)	• Respiratory emergencies, cardio-vascular emergencies, central nervous system emergencies • Endocrine emergencies, toxicology, patient assessment, mental health and mental illness • Introduction to diagnostics	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
EMERGENCY MEDICAL CARE IIB (EMCB201)	• Overview of trauma, the kinematics of trauma, ballistics, the shock syndrome, soft tissue trauma Burns, pain management in trauma patients, management of the polytraumatised patient • Management of the entrapped patient, patient assessment	
MEDICAL RESCUE IIA (MRSA201)	• Rope rescue techniques • Patient management and removal • Introduction to the Incident Management System (IMS) • Introduction to the wilderness environment • Equipment laboratory • Camp craft • Navigation and survival techniques •	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
MEDICAL RESCUE IIB (MRSB201)	• Overview of structural collapse rescue theory of emergency building shoring • Structural collapse incident management, patient management and removal	
PHYSIOLOGY II (PHYL201)	• All body systems • Blood • Immunity • Pregnancy	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
PHARMACOLOGY I (PHCL201)	• General aspects of drug therapy, pharmacokinetics and pharmacodynamics • Administration of drugs to patients, adverse effects of drugs • Drugs affecting the autonomic, somatic and sensory nervous system	This module is based on continuous assessment. Please refer to the module study guide for assessment details.

	• Drugs affecting the central nervous system	
CLINICAL PRACTICE II (CNLP201)	• Emergency medical service operational systems • Professional practice • Emergency medical care at intermediate life support level • Documentation and record keeping	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
Year 3		
EMERGENCY MEDICAL CARE IIIA (EMCA301)	• Applied anatomy and physiology, monitoring oxygenation and ventilation (Sp)2 and EtCO2) • Emergency airway management, oxygen delivery systems, mechanical ventilation • Special airway, oxygenation and ventilation situations, intensive care nursing skills • Rapid sequence intubation, management and resuscitation of the intensive care patient	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
EMERGENCY MEDICAL CARE IIIB (EMCB301)	• Applied anatomy and physiology, Haemodynamic monitoring and support • Electrocardiography, cardiopulmonary resuscitation, arrhythmia management, acute coronary syndromes, thrombolysis, resuscitation of the ACS patient	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
MEDICAL RESCUE IIIA (MRSA301)	• Rope rescue techniques – 2nd level, lead climbing, artificial high directional, advanced stretcher techniques • Physics applied to rope rescue • Incident Management Systems – tactical level	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
MEDICAL RESCUE IIIB (MRSB301)	• Introduction to confined space rescue, confined space hazard control • Atmospheric monitoring & ventilation, self-contained/supplied air breathing apparatus • Patient management and removal, physics applied to confined space rescue • Disaster management – strategic level • Surface rescue and lifesaving • Small boat handling • Swift water rescue	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
GENERAL PATHOLOGY II (GPTH201)	• Introduction to pathology and disease	This module is based on continuous assessment. Please refer to the module study guide for assessment details.

RESEARCH METHODOLOGY I (RSMG102)	• The aims and importance of research, research instruments • Problem identification and development, literature review, the research proposal, collecting data and analysis • Report writing, statistical analysis	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
CLINICAL PRACTICE III (CNLP301)	• Emergency medical service operational systems • Professional practice • Emergency medical care at advanced life support level • Documentation and record keeping	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
Year 4		
EMERGENCY MEDICAL CARE IVA (EMCA402)	• Emergency management of the critically ill/injured adult patient • Emergency management of the poisoned patient • Emergency management of the critically injured trauma patient • Management of adult cardiac arrest • Management of obstetric emergencies • Management of complicated deliveries • Management of obstetric cardiac arrest	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
EMERGENCY MEDICAL CARE IVB (EMCB402)	• Emergency management of the paediatric patient • Emergency care and transportation of the neonate • Management of paediatric cardiac arrest, the intensive care patient, transporting the critically ill/injured patient by road or by air • Special transport situations	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
RESEARCH PROJECT IV (RPJT402)	• Planning a research proposal • Conducting research • Research ethics • Writing a research article • Oral defence of research • Use of tables and figures in a research report • Referencing	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
MANAGEMENT PRACTICE I (MNGP102)	• Principles of Management • New public sector management • Managing equity in the health system • Project management, organizational development and re-engineering the health system	This module is based on continuous assessment. Please refer to the module study guide for assessment details.

	• Managing for change in the health system, human resources management, strategic resource management, motivation and leadership	
EDUCATIONAL TECHNIQUES I (EDTC102)	• Theories of knowledge • Approaches to education • Setting outcomes • Selection of content, selection of strategy • Space, resources and material • Preparation of assessment tools or media	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
CLINICAL PRACTICE IV (CNLP401)	• Mastery of emergency medical service operational systems • Mastery of professional practice • Emergency medical care at advanced life support level • Mastery of documentation and record keeping	This module is based on continuous assessment. Please refer to the module study guide for assessment details.

6. BACHELOR OF TECHNOLOGY: EMERGENCY MEDICAL CARE (BTEMC1)

6.1 Programme Information

This programme is in the process of being phased out. The last registration date for new students will be in January 2019.

Assessment and Moderation

Certain Modules in this programme do not have a final examination. The results for these Modules are determined through a weighted combination of assessments. As such, there are no supplementary examinations. Students are encouraged to work steadily through the period of registration in order to achieve the highest results possible. Assessment details are listed under each Module below. Moderation follows the DUT requirements.

6.2 Learning Programme - Structure

Code	Modules	Year of Study	Assessment Type (CA/E)	SAQA Credits	Pre-requisite subjects
EDTC101	Educational Techniques I	4	CA	18	None
EMCA401	Emergency Medical Care IV	4	CA	36	None
MNGP101	Management Practice I	4	E	18	None
RRES401	Rescue Research Elective IV	4	CA	30	Research Methodology
RSMG101	Research Methodology	4	CA	18	None

6.3 Programme Rules

6.3.1 Selection Criteria

To register for the BTech: Emergency Medical Care, the applicant must meet all the requirements for the award of either the National Diploma: Ambulance and Emergency Care or the National Diploma: Emergency Medical Care. Current registration with the HPCSA PBEC on the Paramedic (ANT) register is a requirement.

6.3.2 Pass Requirements

Students are encouraged to apply themselves to their learning, and strive for the best academic results possible in order to adequately prepare themselves for their future careers, and to maximize possible employment opportunities.

The B Tech: Emergency Medical Care mainly comprises modules with no final examination. As such pass requirements are as follows (as applicable):

1. The Module mark will comprise of all the marks generated during the course of the Module, in the ratio specified in the Study Guide.
2. A minimum of 50% is required to pass the Module.
3. As clinical skills are performed on real patients, in the real world setting, a sub-minimum of 100% will apply to all OSCE evaluations.
4. A sub-minimum of 50% is required for the theory component of all Modules.

6.3.3 Re-registration Rules

The programme is structured to accommodate those National Diploma graduates that are already in full-time employment, nationally and internationally and therefore the B.Tech: programme is offered over two years and only one further year will be allowed for re registration

6.3.4 Interruption of Studies

The minimum duration for this programme will be one (1) year of registered study and the maximum duration will be two (2) years of registered study. Should a student interrupt their studies, the student will need to apply to the department for permission to reregister and will need to prove currency of appropriate knowledge prior to being given permission to reregister.

6.4 Subject Content

Subject Name (code)	Learning areas / content	Assessment Plan
Year 1		
RESEARCH METHOD-OLOGY I (RSMG101)	• The aims and importance of research, research instruments, problem identification and development • Literature review, the research proposal, collecting data and analysis, report writing, statistical analysis	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
EDUCATIONAL TECHNIQUES I (EDTC101)	• Theories of knowledge, approaches to education, setting outcomes • Selection of content, selection of strategy • Space, resources and material • Preparation of assessment tools for media	Portfolio of Evidence 60% Presentation 40%
MANAGEMENT PRACTICE I (MNGP101)	• Human resource management, industrial relations, financial management, public relations • Vehicle fleet management	Assignments 40% Theory examination 60%
RESCUE RESEARCH ELECTIVE IV (RRES401)	• Extrication • Fire, search and rescue • Rope rescue • Wilderness search and rescue • Urban search and rescue • Confined space rescue	This module is based on continuous assessment. Please refer to the module study guide for assessment details.
EMERGENCY MEDICAL CARE IV (EMCA401)	• CORONARY CARE • Coronary care diagnostics, cardiovascular pharmacology, cardiovascular pathophysiology • Acute coronary syndromes • Thrombolysis • Resuscitation of the coronary patient • INTENSIVE CARE • Intensive care nursing skills, the adult intensive are patient, the paediatric intensive care patient • The neonatal intensive care patient • Rapid sequence intubation • Resuscitation of the intensive care patient • DIAGNOSTICS • Introduction to diagnostics • Examining the head and neck; chest; abdomen; pelvis and the extremities Clinical practice requirements: Please note that the clinical practice requirements of this module must be completed and submitted in the form of a portfolio of evidence. This includes the submission of the experiential learning handbook for the module which provides for proof of skills as well as reflection on practice. Even though there is no grade or mark generated, the portfolio is an integral requirement for successful completion of the Emergency Medical Care IV parent subject. Failure to submit the clinical practice portfolio of evidence by the due date will result in failure of the parent subject. Please consult with your programme facilitator should you require further information in this regard.	This module is based on continuous assessment. Please refer to the module study guide for assessment details.

SECTION B: POSTGRADUATE QUALIFICATIONS

7.   MASTER OF HEALTH SCIENCES IN EMERGENCY MEDICAL CARE (MHEMC1)

7.1 Programme Information

This is a full research qualification and the guidelines are contained in the Post Graduate Student Handbook This 180-credit qualification is offered at the SAQA NQF Level 9. This programme comprises a comprehensive, independently executed research project that culminates in a dissertation.

The student will undertake self-study that will comprise proposal writing, literature review and writing up of a dissertation under guidance of the appointed supervisor/s.

Contact with supervisor/s and access to the library and available online databases and e-journals is essential throughout the research process. The conducting of fieldwork/laboratory work/ data collection will be undertaken under supervision following the applicable research methodology in compliance with DUT's Institutional Research Ethics requirements.

Assessment and Moderation

Please refer to the Postgraduate Student Handbook.

7.2   Programme Rules

7.2.1   Minimum Admission Requirements & Selection Criteria

Candidates must be possession of a Bachelors Degree in Emergency Medical Care (NQF Level 8), or must have been granted conferment of status.

Candidates may also apply for admittance via Recognition of Learning (RPL). Acceptance into the Master of Health Sciences in Emergency Medical Care degree is limited and admission is therefore not guaranteed. In the event of there being more applicants than the enrolment plan allows, the ranking will be based on:

1. Academic performance during the undergraduate qualification.
2. A concept document of the proposed research submitted to the Departmental Research Committee for approval

7.2.2   Pass Requirements

Students are encouraged to apply themselves to their research, and strive for the best academic results possible in order to adequately prepare themselves for their future careers. A dissertation will be submitted for examination to two approved external examiners. The dissertation must reflect original research that makes a significant contribution to the field of Emergency Medical Care and Rescue.

7.2.3   Interruption of Studies

Should there be bona fide reasons for the interruption of studies for a period of one (1) year or more once the candidate is formally registered, the student may apply for an interruption of registration. Registration may be interrupted under exceptional circumstances only and is not done retrospectively.

8. DOCTOR OF PHILOSOPHY: EMERGENCY MEDICAL CARE (DPEMC1)

8.1 Programme Information

This is a full research qualification and the guidelines are contained in the Post Graduate Student Handbook. This 360-credit qualification is offered at the HEQSF Level 10. This programme comprises a novel, comprehensive, independently executed research project that culminates in a thesis.

The student will undertake self-study that will comprise proposal writing, literature review and writing up of a thesis under guidance of the appointed supervisor/s.

Contact with supervisor/s and access to the library and available online databases and e-journals is essential throughout the research process. The conducting of fieldwork/laboratory work / data collection will be undertaken under supervision following the applicable research methodology in compliance with DUT's Institutional Research Ethics requirements.

Assessment and Moderation

Please refer to the Postgraduate Student Handbook.

8.2 Programme Rules

8.2.1 Minimum Admission Requirements & Selection Criteria

The minimum admission requirements to register for the Doctor of Philosophy in Emergency Medical Care degree are:

- Candidates must be in possession of an appropriate Master's degree in the field of Emergency Medical Care and Rescue, or the candidate must have been granted conferment of status.
- Candidates are encouraged to refer to the General Student Handbook and the Postgraduate Student Handbook for further details.

Acceptance into the Doctor of Philosophy in Emergency Medical Care degree is limited and entry is therefore not guaranteed. In the event of there being more applicants than the enrolment plan allows, the following criteria will be applied for selection:

- Candidates must have completed their Master's degree within the prescribed time frame as stated by the Durban University of Technology.
- A concept document of the proposed research topic must be submitted to the Departmental Research Committee for approval prior to registration.

8.2.2 Pass Requirements

Students conduct independent original research through scientific discourse and independent investigation contributing to the development of the field of emergency medical care and rescue. The outcome of this field-specific Doctoral Degree is a comprehensive and systematic grasp of an in-depth body of knowledge in the field of emergency medical care and rescue with the development of specialist expert knowledge, thereby contributing to evidence based professional practice.

A thesis will be submitted for examination to two approved external examiners. The thesis must reflect original research that makes a significant, novel contribution to the field of Emergency Medical Care and Rescue.

8.2.3 Interruption of Studies

The minimum duration for this programme shall be two consecutive years of registered study and the maximum duration will be four years of registered study.

Should there be *bona fide* reasons for a break of a year or more once you are formally registered, you may apply for a suspension of registration. Your registration may be suspended only under **exceptional circumstances**, and is rarely done retrospectively.

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