DUT
DURBAN UNIVERSITY OF TECHNOLOGY

FACULTY OF HEALTH SCIENCES

2016 HANDBOOK
EMERGENCY MEDICAL CARE & RESCUE

HANDBOOK FOR 2015

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

CONTENTS

		Page
1.	**DEPARTMENTAL & FACULTY CONTACT DETAILS**	1
2.	**STAFFING**	2
3.	**DEPARTMENTAL INFORMATION & RULES**	**3**
3.1	Qualifications offered by the department	**3**
3.2	Departmental Information	**3**
3.3	Departmental Rules	3
4.	**Bachelor of Health Sciences in Emergency Medical Care**	4
4.1	Learning Programme – Structure	4
4.2	Programme Information	5
4.3	Programme Rules	5
4.3.1	Minimum Admission Requirements	5
4.3.2	Selection Criteria	5
4.3.3	Pass Requirements	6
4.3.4	Re-registration Rules	6
4.3.5	Exclusion Rules	6
4.3.6	Interruption of Studies	7
4.4	Module Content	7
5.	**Bachelor of Technology: Emergency Medical Care**	8
5.1	Learning Programme – Structure	8
5.2	Programme Information	**8**
5.3	Programme Rules	8
5.3.1	Selection Criteria	8
5.3.2	Pass Requirements	8
5.3.3	Re-registration rules	8
5.3.4	Exclusion Rules	8
5.3.5	Interruption of Studies	9
5.4	Module Content	9
6.	**Master of Health Sciences in Emergency Medical Care**	10
6.1	Programme Information	10
6.2	Programme Rules	10
6.2.1	Minimum Admission Requirements and Selection Criteria	10
6.2.2	Pass Requirements	10
6.2.3	Re-registration Rules	10
6.2.4	Exclusion Rules	11
6.2.5	Interruption of Studies	11

7. **Doctor of Philosophy in Emergency Medical Care**..... 12
7.1 Programme Information..... 12
7.2 Programme Rules..... 12
7.2.1 Minimum Admission Requirements and Selection Criteria..... 12
7.2.2 Pass Requirements..... 12
7.2.3 Re-registration Rules..... 13
7.2.4 Exclusion Rules..... 13
7.2.5 Interruption of Studies..... 13

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:	Mr Vikesh Singh
Tel No:	(031)-3732701
Fax No:	(031)-3732407
Email:	vikeshm@dut.ac.za
Location:	Health Faculty Office, Gate 8, Steve Biko Road, Mansfield Site Area, Ritson Campus
Executive Dean:	Professor T Puckree
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
Acting Head of Department	Mr S Sobuwa, ND: Emergency Medical Care (CPUT); BTech: Emergency Medical Care (CPUT); MSc: Emergency Medicine (UCT); HD: Education and Training (CPUT)
Lecturers	Mrs N Williams-Claassen, ND: Emergency Medical Care (DUT); BTech: Emergency Medical Care (DUT); MTech: Emergency Medical Care (DUT)
	Mr S Naguran, ND: Ambulance and Emergency Care (DUT); BTech: Emergency Medical Care (DUT); MTech: Emergency Medical Care (DUT)
Technician	Mr T Trower, ND: Emergency Medical Care (DUT); BTech: Emergency Medical Care (DUT)
Clinical Tutor	Mrs F Tsiri, ND: Emergency Medical Care (DUT)
Secretary	Mrs L Meyers, ND: Office Management and Technology (DUT); BTech: Office Management and Technology (DUT)
Honorary Research Fellow	Dr N Castle, Dip: Immediate Medical Care (Edinburgh); MSc: Cardiology (Sussex); PhD (City London)

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	BHEMC1		74471
MHSc: Emergency Medical Care	MHEMC1		57209
BTECH: Emergency Medical Care	BTEMC1	Teach out 2016	63129
DPhil: Emergency Medical Care	DPEMC1		90818

3.2 Departmental information

3.2.1 Code of Conduct for Students

1. Students must comply with the departmental uniform regulations.
2. Students must comply with the departmental general conduct regulations.
3. Students must comply with the departmental Standard Operating Procedures (SOP).

3.2.2 Attendance

Students are encouraged to achieve 100% attendance for all planned academic activities as these are designed to provide optimal support for the required competency. Where absence is unavoidable, the student must timeously advise the department of the reason. Only exceptional reasons will be accepted for absence from guest lectures, industry or field trips. Poor attendance records may lead to penalties. Where absence impacts on assessment —please refer to rule 3.3.1 below.

3.2.3 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.

3.2.4 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 (BHEMC1)

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.

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 consistently throughout the academic programme in order to achieve the highest results possible. Assessment details are listed under each module. Moderation is undertaken in compliance with DUT requirements.

4.2 LEARNING PROGRAMME - STRUCTURE

Codes	Modules:	Year of Study	Assess-ment Type (CA/E)	SAQA Credits	Pre-requisite subjects	Co-requisite sub-jects
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	Physical fitness	Medical Rescue IB
MRSB101	Medical Rescue IB	1	CA	15	Physical fitness	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 & physical fitness	Medical Rescue IIB
MRSB201	Medical Rescue IIB	2	CA	15	Medical Rescue IA & IB & physical fitness	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 & physical fitness	Medical Rescue IIIB
MRSB301	Medical Rescue IIIBMedical Rescue IIIB	3	CA	15	Medical Rescue IIA & IIB & physical fitness	None
GPTH201	General Pathology II	3	CA	20		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

4.3 Programme Rules

4.3.1 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:

- Medical Fitness Evaluation
- Physical Fitness Evaluation
- Environmental Evaluation (including claustrophobia, acrophobia)

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

4.3.2 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 who pass the physical fitness and medical assessments are invited for 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.

4.3.3 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 clinical and 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 Emergency Medical Care and Medical Rescue Modules).
4. A sub-minimum of 50% is required for the theory component of all Modules.
5. A sub-minimum of 40% is required for the final integrated theory test for all Modules.
6. A pass in all components of the physical fitness assessment is required as a pre-requisite to all Medical Rescue Modules in all levels.

4.3.4 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, physical and environmental 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.

4.3.5 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.

4.3.6 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.

4.3.7 Subject content

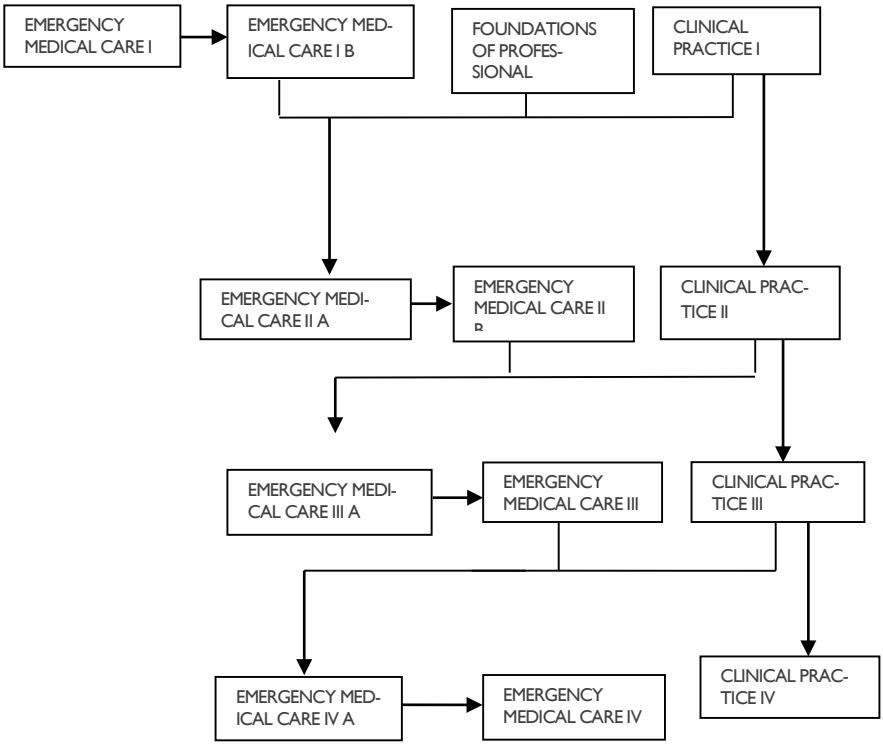
Subject Name (code)	Learning areas / content	Assessment Plan
Year 1		
FOUNDATIONS OF PROFESSIONAL PRACTICE (FDPP101)	• Academic skills, Computer literacy, • Introduction to the Emergency Medical Services (EMS) —Task level	Theory tests 50% Assignment 50%
EMERGENCY MEDICAL CARE I A (EMCA101)	• Introduction to Emergency Care, Basic and Intermediate life support for the adult patient • Integrated patient care	Theory tests 60% OSCE 10% Simulation 30%
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	Theory tests 60% OSCE 10% Simulation 30%
MEDICAL RESCUE IA (MRSA101)	• Introduction to fire, search and rescue • Scene stabilization, Vehicle stabilization Extrication techniques, patient management and removal	Theory tests 60% OSCE 10% Group Simulation 30%
MEDICAL RESCUE IB (MRSB101)	• Rope rescue techniques • Patient management and removal • Introduction to the Incident Management System (IMS)	Theory tests 60% OSCE 10% Group Simulation 30%
ANATOMY AND PHYSIOLOGY I (ATPH102)	• Introduction • Cells • Tissues • All body systems	Tests 80% Practicals 20%
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	Test 1 (Chemistry) 25% Test 2 (Chemistry) 25% Test 1 (Physics) 25% Test 2 (Physics) 25% In each component of this subject a minimum total of 50% is required for a pass

	• PHYSICS: • Basics of physics • Mechanics • Hydrostatics • Heat	
CLINICAL PRACTICE I (CNLP101)	• Emergency medical service operational systems • Professional practice • Emergency medical care • Documentation and record keeping	Portfolio of evidence 60% Clinical Case Student Presentations 40%
Year 2		
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	Theory tests 80% Assignment/s 20%
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	Theory tests 80% Assignment/s 20%
MEDICAL RESCUE IIA (MRSA201)	• Rope rescue techniques – 2nd level, lead climbing, artificial high directional, advanced stretcher techniques • Physics applied to rope rescue • Incident Management Systems – tactical level	Theory tests 60% OSCE 10% Group Simulation 30%
MEDICAL RESCUE IIB (MRSB201)	• Introduction to the wilderness environment • Equipment laboratory • Camp craft • Navigation and survival techniques	Theory tests 60% OSCE 10% Group Simulation 30%
PHYSIOLOGY II (PHYL201)	• All body systems • Blood • Immunity • Pregnancy	Theory Evaluations 100%
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 • Drugs affecting the central nervous system	Theory Evaluations 100%
CLINICAL PRACTICE II (CNLP201)	• Emergency medical service operational systems • Professional practice • Emergency medical care at intermediate life support level • Documentation and record keeping	Portfolio of evidence 60% Clinical Case Student Presentations 40%
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	Theory tests 60% OSCE 10% Simulation 30%

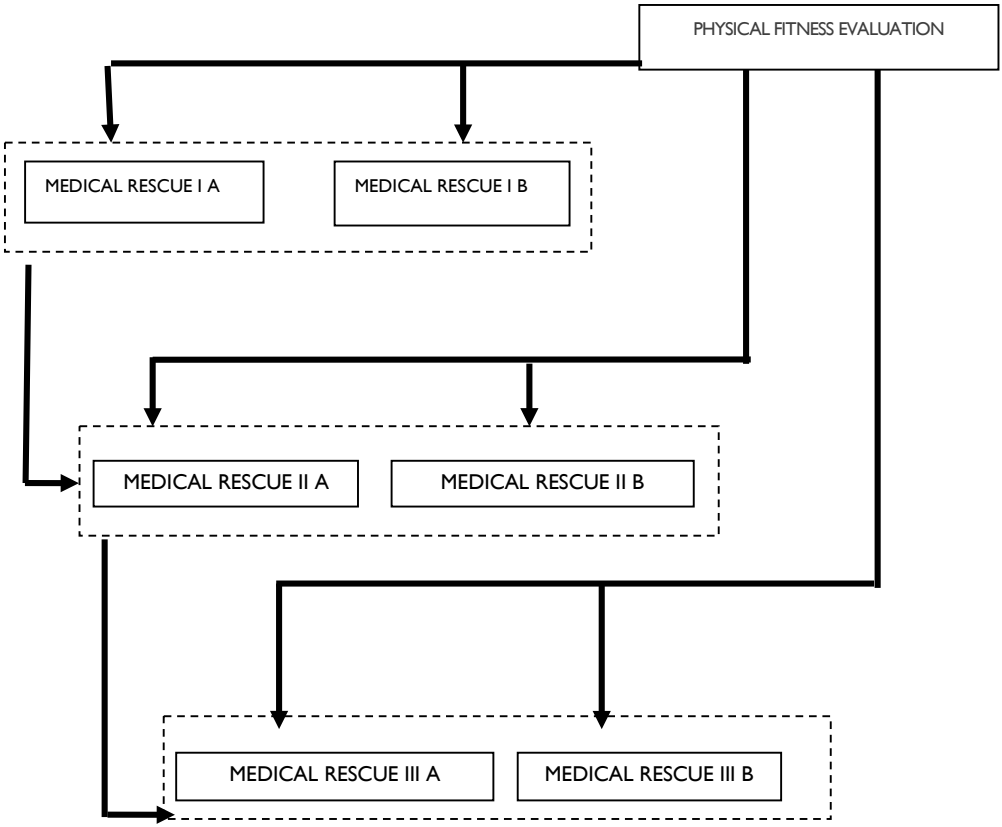
	• Special airway, oxygenation and ventilation situations, intensive care nursing skills • Rapid sequence intubation, management and resuscitation of the intensive care patient	
EMERGENCY MEDICAL CARE IIIB (EMCB301)	• Applied anatomy and physiology, Haemodynamic monitoring and support • Electrocardiography, cardiopulmonary resuscitation, arrhythmia management, acute coronary syndromes, thrombolysis, resuscitation of the ACS patient	Theory tests 60% OSCE 10% Simulation 30%
MEDICAL RESCUE IIIA (MRSA301)	• 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	Theory tests 60% OSCE 10% Group Simulation 30%
MEDICAL RESCUE IIIB (MRSB301)	• Theory of trench rescue, trench rescue safety, trench incident management • Patient management and removal, physics applied to trench rescue • Overview of structural collapse rescue theory of emergency building shoring • Structural collapse incident management, patient management and removal	Theory tests 60% OSCE 10% Group Simulation 30%
GENERAL PATHOLOGY II (GPTH201)	• Introduction to pathology and disease	Theory evaluations 30% Practicals 6% Attendance 4% Examination 60%
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	Literature Review 20% Data Analysis 20% Theory Test 60%
CLINICAL PRACTICE III (CNLP301)	• Emergency medical service operational systems • Professional practice • Emergency medical care at advanced life support level • Documentation and record keeping	Portfolio of evidence 60% Clinical Case Student Presentations 40%
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	Theory tests 60% OSCE 10% Simulation 30%
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	Theory tests 60% OSCE 10% Simulation 30%

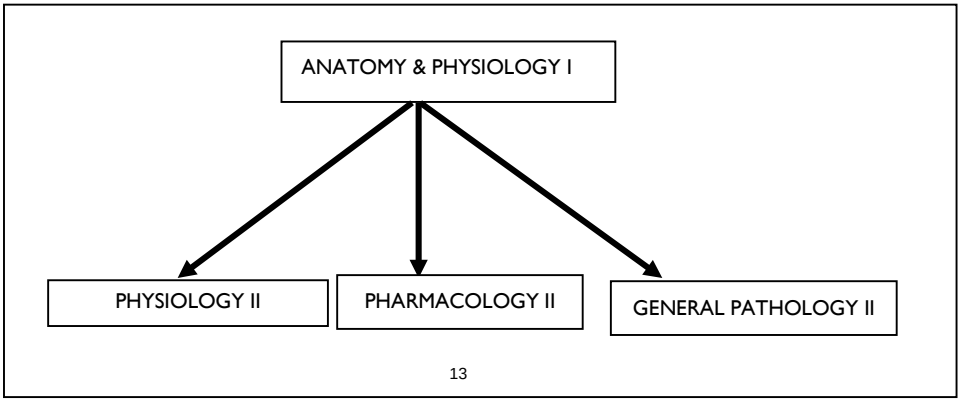
	the critically ill/injured patient by road or by air • Special transport situations	
RESEARCH PROJECT IV (RPJT402)	• Planning a research proposal • Conducting research • Research ethics • Writing a research article • Oral defence of research • Use of tables and figures in a research report • Referencing	Research proposal 40% Output 60%
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 • Managing for change in the health system, human resources management, strategic resource management, motivation and leadership	Theory Examination 60% Classwork 40%
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	Presentation Evaluation 50% Portfolio 50%
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	Portfolio of evidence 60% Clinical Case Student Presentations 40%

PRE-REQUISITE MODULE FLOWCHART I (EMERGENCY MEDICAL CARE)



PRE-REQUISITE SUBJECT FLOWCHART 2 (MEDICAL RESCUE)





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

5.1 Programme Information

This programme is in the process of being phased out. The last new intake was in January 2014.

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.

5.2 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

5.3 Programme Rules

5.3.1 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.

5.3.2 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 BTech: Emergency Medical 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 and 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 Emergency Medical Care and Medical Rescue Modules).
4. A sub-minimum of 50% is required for the theory component of all Modules.
5. A sub-minimum of 40% is required for the final integrated theory test for all Modules.

5.3.3 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

5.3.4 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.

5.4 Subject Content

Subject Name (code)	Learning areas / content	Assessment Plan
Year 1		
RESEARCH METHODOLOGY 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	Theory test 60% Assignment 20% Statistical Analysis 20%
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	Research proposal 40% Research project 60%
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	Assignments 40% Theory tests 60% Assignments 40% Theory tests 60%

	• 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.	Theory 100%

SECTION B: POSTGRADUATE QUALIFICATIONS

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

6.1 Programme Information

This full research qualification and the guidelines 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 which 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.

6.2 Programme Rules

6.2.1 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

6.2.2 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.

6.2.5 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.

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

7.1 Programme Information

This full research qualification and the guidelines 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.

7.2 Programme Rules

7.2.1 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.

7.2.2 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.

7.2.5 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.