

Division of
Emergency Medicine
MPhil Emergency Medicine
2011



**MPhil Emergency Medicine
Program Outline
Jan 2011**

AIM

South Africa faces many healthcare challenges. Our Healthcare system is seriously overburdened and the epidemics of HIV/AIDS and Trauma require that a large amount of time, resources and skills are spent managing acute emergencies. Emergency Medicine is a relatively new speciality and while specialist services are always required, there is a need to upgrade the knowledge and skills all individuals working in Emergency Care environments

This programme will develop a group of highly competent Emergency Care workers with Clinical, Management and Research skills in order to promote Emergency Care in South Africa.

We aim to produce Masters graduates who will be able to analyse and assimilate the medical literature and develop evidence-based practices. They will be trained in critical appraisal and develop an understanding of clinical decision making skills. Graduates should be able to evaluate and manage Emergency Care systems.

Graduates will have an understanding of the principals of research methodology, clinical epidemiology and biostatistics. The research component will develop a foundation to promote and foster Emergency Care research in South Africa, encourage evidence-based practice and develop locally appropriate policies.

Graduates will be taught to develop their professional leadership skills and promote quality team-based Emergency Care in South Africa.

PROGRAM COMPOSITION

This is a 2 year part time programme. Students will be required to work in an Emergency Care environment while registered.

ADMISSION REQUIREMENTS

The MPhil Emergency Medicine will be open to Doctors, Nurses and Paramedics in Emergency Care.

Doctors – MB ChB or equivalent; candidates should have a minimum of 1 year Emergency Care experience post internship and completed 2 of the Advanced Life Support courses (ACLS, ATLS, APLS or PALS)

Nurses – 4 year Bachelor of Nursing or equivalent; minimum 2 years experience in Emergency Care environment and completed 2 of the Advanced Life Support courses (ACLS, ATLS, APLS or PALS)

[in motivated candidates, the 3 year nursing degree and the use of in service logbooks may be used to apply for recognition of prior learning according to the UCT RPL policy]

Preference will be given to Nurses with Trauma or Critical care training

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Paramedics - BTech degree; 2 years post registration as a paramedic; must have completed 2 of the Advanced Life Support courses (ACLS,ATLS, PHPLS or similar)
[in motivated candidates the 3 year NDip and the use of in service logbooks may be used to apply for recognition of prior learning according to the UCT RPL policy]

PROGRAM STRUCTURE

3 Streams

- A. Clinical Emergency Care (6 core/2 electives)
- B. African Emergency Care (3 core/1 elective)
- C. Patient Safety and Medical decision making (5 core/ 1 elective) – *FROM 2013

NB. All core modules to be completed in the two years of registration.

	Clinical Emergency Care	African Emergency Care	*Patient safety and Medical Decision Making
CORE YR 1	Clinical Research Methods I <i>10</i>	Clinical Research Methods I <i>10</i>	Clinical Research Methods I <i>10</i>
	Clinical Emergency Care I <i>10</i>		Emergency Care Systems and Management <i>15</i>
	Clinical Emergency Care II <i>10</i>	African Emergency Care <i>15</i>	Critical Thinking in Emergency Care <i>15</i>
			Patient Safety and CQI <i>15</i>
CORE YR 2	Clinical Research Methods II <i>15</i>	Clinical Research Methods II <i>15</i>	Clinical Research Methods II <i>15</i>
	Resuscitation and Critical Care <i>15</i>		
	Emergency Care Systems and Management <i>15</i>		
ELECTIVE	Emergency Ultrasound <i>15</i>	Emergency Ultrasound <i>15</i>	Error theory and Advanced Decision making <i>15</i>
	Disaster Medicine <i>15</i>	Disaster Medicine <i>15</i>	
	Basic Medical Rescue <i>10</i>		

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	Education and Training in Emergency Care <i>10</i>	Education and Training in Emergency Care <i>10</i>	Education and Training in Emergency Care <i>10</i>
	Primary Health Care In Emergency Care <i>10</i>		
Credits for coursework	95-105	50-55	80-85
LEARNING PORTFOLIO	40	40	20
RESEARCH MODULE/ THESIS	60	90	90
TOTAL Credits	195-205	180-185	180-185

SEMESTER OUTLINE:

Clinical Emergency Care:

	Semester 1	Semester 2	
Year 1	CRM I CEC I	CEC II	core
		Education Disaster	elective
Year 2	CRM II RCC	ECSM	core
	Ultrasound Rescue	Education Disaster PHC	elective

African Emergency Care

	Semester 1	Semester 2
Year 1	CRM I	African EC
Year 2	CRM II	Education Disaster

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MODULES AND FEES

Emergency Care I

This semester based module focuses on clinical emergency care. It will be a problem-based course with emphasis on evidence based medicine and clinical decision-making. Students will be encouraged to critically appraise the evidence and develop their own management protocols. Module I will focus on General medical cases including cardiology, neurology and pulmonology; Surgical and Paediatric Cases. Core clinical competencies in key emergency medicine related skills and procedures will be required. Assessment is by virtue of assignments and skills session and a final summative assessment.

Year 1 Semester 1

Course co-ordinator: Dr P Louw / Dr A Parker/ Dr B Cheema

Emergency Care II

This semester based module focuses on clinical emergency care. It will be a problem-based course with emphasis on evidence based medicine and clinical decision-making. Students will be encouraged to critically appraise the evidence and develop their own management protocols. Module II will focus on Trauma, Toxicology and Environmental Medicine cases. Core clinical competencies in key emergency medicine related skills and procedures will be required. Assessment is by virtue of assignments and skill sessions and a final assessment.

Year 1 Semester 2

Course Co-ordinator: Dr A Kropman / Dr M Stander

Resuscitation and Critical Care

This semester based module focuses on clinical Emergency Care in Resuscitative and Critical Care medicine. It will be a problem-based course with emphasis on evidence based medicine and clinical decision-making. Students will be encouraged to critically appraise the evidence and develop their own management protocols. Core clinical competencies in key emergency medicine related skills and procedures will be required. Assessment is by virtue of assignments and skill sessions and a final assessment.

Year 2 Semester 1 (*subject to change*)

Course co-ordinator: Dr H Geduld/ Dr A Kropman

Emergency Care Systems and Management

This is a semester based module designed to generate an understanding of health systems and management principles in Emergency Care. This module will encompass decision-making in emergency care, error and patient safety, and continuous quality improvement. The structure and function of emergency care systems including global health systems, pre-hospital and in-hospital systems will be examined. An analysis of Processes and Flow in emergency systems, and how these are related to error and productivity will be examined. Assessment is by virtue of coursework and assignments and completion of a research project related to management principles and quality improvement.

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Year 2 Semester 2

Course Co-ordinator: Prof LA Wallis, Dr H Tuffin

Clinical Research Methods I

This is a semester based web-module designed to develop a coherent and critical understanding of the theory, research methodologies and techniques relevant to Emergency Medicine. It aims to guide students to develop their own research proposals for submission to the Research and Ethics Committee. Assessment will be based on coursework and the development of an acceptable Research proposal.

Year 1 Semester 1

Course co-ordinator: Dr N Van Hoving/ Dr H Lamprecht

Clinical Research Methods II

This is a semester based web-module designed to develop a coherent and critical understanding of the theory, research methodologies and techniques relevant to (clinical epidemiology necessary for completion of a masters level thesis. Assessment will be on the basis of coursework and assignments.

Year 2 Semester 1

Course Co-ordinator: Dr N Van Hoving / Dr H Lamprecht

Ultrasound in Emergency Care

This semester based module covers the practical and theoretical aspects of Ultrasound in Emergency Care up to Level 1 (as defined by the College of Emergency Medicine). The module will include clinical skills training, basic principles of the physics of ultrasound and ultrasound modes. Emphasis will be on the clinical utility and capabilities of emergency ultrasound. Students will be expected to keep a logbook of ultrasound scans performed in the emergency environment. These will be reviewed by the instructor. Assessment will be on the basis of a practical assessment and written assessment. Upon completion students will be eligible to sit the EMSSA level 1 Ultrasound provider exam. This is an external exam. (NB. cost **not** included in course fees)

Year 2, Semester 2

Course Co-ordinator: Dr H. Lamprecht, Dr M. Stander

Disaster Medicine

This is a semester based module. The module encompasses the underlying principles of Disaster medicine including risk assessment, preparation and planning, communication and response. The module delineates the multiservice response required for a major incident. Students will be given practical knowledge of tools, resources and processes utilised in a medical major incident response . The assignments will involve case reports evaluating aspects of current disasters/major incidents. Students will be required to complete a research project involving disaster, major incidents or mass gathering scenarios. Contact time will include a practical major incident response simulation. Assessment will be on the basis of coursework and a final project.

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Contact sessions for this course includes the 5 Day Disaster Medicine course in Cape Town from 20-24 July 2011. NB. The cost of the course manual and catering are **not** included in the course fees.

Year 1 and 2, Semester 2

Course Co-ordinator: Dr W Smith

Education and Training in Emergency Care

This is a semester based course which will cover aspects of Adult learning theory, small group teaching, use of virtual learning environments (VLE) and electronic learning resources; and clinical skills based teaching. Assessment will be by coursework and a final project.

In 2011 the module will include attending the education sessions on 1 day of the EMSSA2011 conference. NB. The cost of CPD and catering for conference **not** included in course fees.

Year 1 and 2, Semester 2

Course Co-ordinator: Dr H Geduld, Dr K Cohen

Basic Medical Rescue

This semester based module will cover selected aspects of basic prehospital medical rescue involving basic rescue theory and principles of scene management. It will be run in conjunction with the Rescue Training division of the College of Emergency Care.

It will include such practical skills training as High Angle Rescue, water rescue, immobilisation and extrication techniques. Assessment will be on the basis of practical skills test, theory test and research paper.

Year 2, Semester 1

Course co-ordinator: Dr A Kropman

Primary Health Care for Emergency Care Workers

This module will cover aspects of the common primary health care complaints which may be managed by Emergency Care workers. The module will incorporate principles of the family medicine and the bio-psychosocial model of patient interaction. It will include clinical approaches and management of common presentations. The course will also cover communication principles in the clinical setting. Assessment will be by coursework and final assessment.

Year 2, Semester 1

Course co-ordinator: Dr A Kropman, Dr D Fredericks

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African Emergency Care

This semester based module will cover aspects of African epidemiology and Emergency Care systems both prehospitally and inhospital. The aim is to explore Emergency Care in Africa in terms of initiating, developing and maintaining appropriate and adequate systems. Aspects of cost-effectiveness, continuous quality improvement and patient safety will also be covered. Assessment will be by virtue of coursework and research paper.

In 2011 the module will include attending the African Development sessions on 1 day of the EMSSA2011 conference. NB. The cost of CPD and catering for conference **not** included in course fees.

Year 1, Semester 2

Course co-ordinator: A. Prof L.A. Wallis, visiting lecturer

TEACHING AND LEARNING

This is a master's level course where emphasis is placed on the student as the primary determinant of his learning. The course does not focus on covering a knowledge based curriculum but rather teaching the skills of critical appraisal, rational clinical decision making and knowledge translation.

A problem-based approach will be followed with an emphasis on the emergency care team and the incorporation of evidence based medicine. Much of the learning will be web based, so access to a computer and the internet is essential.

Each module will have between 3 and 5 contact days per semester. 80% attendance at these contact days is required in order to pass the module.

RESEARCH

In order to graduate with an MPhil in Emergency Medicine, each student has to complete a research project within the 2 years. The focus of the Clinical Research modules will be to guide the student through the process of developing and completing their project.

For students in the Clinical Emergency Care stream the completed project may take the form of a paper submitted to a peer-reviewed journal plus a comprehensive literature review of the topic.

For students in the African Emergency Care stream the completed project must be a 50 000 word thesis.

For information on the Division's Research focus areas and the process of Research in the division, see the Emergency Medicine Divisional Research Policy.

www.emergencymed.co.za

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LEARNING PORTFOLIO

A learning portfolio is to be maintained throughout the 2 years of registration. The aim of the portfolio is to encourage mature and reflective thinking about your academic and professional development during this Masters program. A good portfolio should guide your learning.

The portfolio should consist of narratives of scenarios, clinical cases or learning events. These can be both positive or negative. The key aspect should be your reflection of the event in the form of a reflective essay exploring your understanding of the experience.

Tips on Reflection:

- Be specific- what went well/what went wrong/how did you solve this/what effect did this have
- Think about others involved in this incident such as patients, colleagues or teachers – what were their expectations/reactions?
- What emotions did you experience?
- Be honest – It is okay to be wrong sometimes , as long as you learn from it
- What have you learnt from the experience?
- What gaps do you have in your knowledge/skills/professionalism/teamwork/leadership?
- What are your personal goals and learning objectives?

Portfolios should consist of a minimum of 25 reflections, a minimum of 1 per month throughout the 2 year program.

The portfolio may be kept in electronic or paperbased format. However portfolios should be made available to the mentor on a quarterly basis. The student and mentor will discuss the portfolio and the goals and learning objectives demonstrated within.

At the end of the program, the Divisional University Executive committee will mark the portfolio.

MENTORS AND SUPERVISION

Students on the MPhil will be assigned a mentor provide academic and individual support throughout the program. The mentor will be the first point of contact when problems arise. If the problem cannot be dealt with at this level, it should be referred to the Programme Co-ordinator (Dr Welzel), Head of Education (Dr Geduld) or the Head of the Division (Prof Wallis).

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READING LIST

Core Reading

Textbook of Adult Emergency Medicine
Peter Cameron, George Jelinek et al
ISBN: 978-0443068195

Recommended Reading

Books

1. Rosen's Emergency Medicine: concepts and clinical practice
John Marx, Robert Hockberger, et al
ISBN: 978-0-323-05472-0

2. Patient Safety in Emergency Medicine
Pat Croskerry, Karen S Cosby
ISBN: 978-0-7817-7727-8

3. Practical Teaching in Emergency Medicine
Rob Rogers, Amal Mattu et al
ISBN: 978-1-4051-7622-4

4. Disaster Medicine
Lee Wallis, Wayne Smith
ISBN: 978-0-7021-8670-0

5. How to Read a Paper: The Basics of Evidence-Based Medicine
Greenhalg P
ISBN: 978-1-4443-3436-4

6. Designing Clinical Research: An epidemiological Approach
Hulley et al
ISBN: 978-0-7817-8210-4

Journals

1. Emergency Medicine Clinics of North America
2. Emergency Medicine Journal
3. Annals of Emergency Medicine
4. Disaster and Pre-hospital Medicine

USEFUL LINKS

www.emergencymed.co.za - Division of Emergency Medicine UCT and SUN
www.eci-sa.org - short courses from Division of EM
www.emssa2011.co.za - EMSSA Emergency Medicine conference
www.lifeinthefastlane.com - great EM blog
EMT podcast – *available on itunes*
www.emedicine.com -good reference site

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FEES

MPhil in Emergency Medicine (Clinical Emergency Care Stream)	
1 st Year	R 10 560
2 nd Year	R 10 560
Dissertation (60 credits)	R 10 570
MPhil in Emergency Medicine (African Emergency Care Stream)	
1 st Year	R 9 680
2 nd Year	R 2 640
Dissertation (90 credits)	R 15 840

CONTACT DETAILS

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