

Emergency Health Services

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EMS education, volunteer organizations, international EMS development

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CENTER FOR EMERGENCY EDUCATION AND DISASTER RESEARCH

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The Department of Emergency Health Services offers a unique perspective for the education of future EMS professionals. This is accomplished by providing a broad liberal arts and sciences education, which enhances the graduates' employment opportunities as pre-hospital providers and managers. The Department of Emergency Health Services also prepares graduates for advancement to graduate and professional studies.

Career and Academic Paths

Federal, state and local efforts in the past decade have resulted in innovative programs designed to improve the quality and efficiency of emergency health care services. As a result, several career fields have been created. Health professionals are needed at all levels in today's emergency medical services system. Depending on experience and education, EMS health professionals will serve as emergency medical technicians, educators, supervisors, coordinators, planners, consultants, managers and directors. Additionally, EMS activities are relevant to ambulance providers, fire and rescue services, hospitals, industrial health services, military and volunteer EMS organizations.

The solid academic basis of the EHS baccalaureate degree also prepares students for advanced studies in the sciences, medicine, public health, hospital administration and other health management programs. There are two separate tracks within the Department of Emergency Health Services — management and paramedic.

Management Track

Admission to the management track is concurrent with the general admission requirements at UMBC. Both freshman and transfer students must submit university application forms to the

UMBC Office of Undergraduate Admissions and Orientation.

Paramedic Track

The EMT paramedic is a professional provider of emergency care who must possess the essential attributes that are demanded by the profession, including general academic ability, physical abilities, interpersonal relationship skills, capacity for appropriate judgment and orientation toward human services. Class size is limited. EHS paramedic track majors are required to submit a formal application to the paramedic track by March 31, preceding the first semester that the student is eligible to take paramedic clinical courses. All EHS paramedic track lower-division requirements must be completed with a grade of "C" or higher prior to taking any paramedic clinical courses.

The application will be accompanied by:

- ◆ A copy of the student's Maryland EMT-Basic certification
- ◆ Current CPR (BCLS) certifications
- ◆ Acceptable verification of status of physical health and immunizations
- ◆ Verification of active EMS experience, including documentation of at least 100 patient contacts with assessments prior to the first semester of paramedic clinical courses
- ◆ Four recommendations as suggested by the program
- ◆ Official transcripts from all colleges or university programs
- ◆ Verification of membership in a Maryland fire or EMS agency

The application package, including academic record, will be reviewed by a selection committee. Final selection of students will be based on a personal interview, the ability to complete any remaining credit hours of EHS paramedic track lower-division require-

Courses in this program are listed under EHS.

Students gain a unique depth of experience in emergency health services through this baccalaureate degree. The program stresses academic and clinical abilities, interpersonal and leadership skills, and the capacity for appropriate judgment. The major objective of the degree program is to prepare students for work in various occupational settings relating to emergency health services systems. Primary emphasis is placed upon developing leadership skills and promoting personal and professional growth.

Graduates are prepared to:

- 1) Coordinate and manage emergency health systems
- 2) Interact effectively with other professionals in the emergency medical services system, as well as with community agencies and the general public
- 3) Satisfy certification requirements for EMT-Basic or EMT-Paramedic
- 4) Conduct or use research
- 5) Pursue graduate study

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ments prior to the beginning of the first semester of paramedic clinical courses and the student's previous emergency care experiences. Interviews are scheduled in April.

Paramedic track students are required to purchase malpractice insurance through the university and scrubs and clinical uniforms from the department while engaged in clinical and field experience. Other fees and costs may be associated with participation in clinical and field training. Students are required to provide their own transportation to clinical and field experience sites. Personal health insurance coverage is strongly recommended.

The paramedic track is accredited nationally by the Committee on Accreditation of EMS Professions and locally by the Maryland Institute for Emergency Medical Services Systems.

Academic Advising

Successful completion of the EHS program requires thoughtful sequencing and careful attention to the program requirements; therefore, early and continuous advising is necessary. Students will be assigned a permanent EHS faculty advisor upon receipt of application forms. Transfer students should seek pre-transfer advising from the UMBC Office of Undergraduate Admissions and Orientation and the EHS office. The Department of Emergency Health Services welcomes high school students to contact an advisor for information. All UMBC students are required to complete the General Education Program (GEP). Students must take elective courses in science, humanities, social science and culture or foreign language to fulfill the GEP. Some GEPs coincide with EHS degree requirements. Students are encouraged to work closely with their EHS faculty advisor in selecting GEP courses that will satisfy their individual interests.

Major Program

The EHS curriculum leading to a Bachelor of Science (B.S.) degree combines courses in the arts and humanities, social sciences, mathematics, sciences and EHS courses.

A grade of "C" or better is required for all courses in the major. P/F grading is not acceptable for departmental required coursework.

EHS Management Track

Lower-Division Requirements

Science Course (6 credits required)

BIOL 103
Biological Topics in Modern Society [3]

OR

SCI 100
Water: An Interdisciplinary Study

OR

CHEM 100
The Chemical World [3]

Mathematics Courses (7 credits required)

MATH 115
Finite Mathematics [3]

OR

MATH 100
Contemporary Mathematics [3]

STAT 121
Introduction to Statistics of the Social Sciences [4]

Social Sciences/ Political Science (21 credits required)

SOCY 101
Basic Concepts in Sociology [3]

PSYC 100
Introduction to Psychology [4]

POLI 100
American Government [3]

POLI 250
Public Administration [3]

ECON 101
Principles of Microeconomics [3]

ECON 121
Principles of Accounting I [3]

ECON 122
Principles of Accounting II [3]

Emergency Health Services (3 credits)

EHS 200*
Introduction to Emergency Health Services [3]

*Transfer students enroll during first semester at UMBC.

English (3 credits)

ENGL 100
Composition [3]

Electives (31 credits)

Select from EHS electives or GFR. Management track majors are encouraged to complete electives for the Certificate in Public Administration.

EHS Management Track Upper-Division Requirements

Social Sciences/ Political Science (9 credits required)

SOCY 351*
Medical Sociology [3]

POLI 354
Public Management and Personnel Systems [3]

ECON 467
Health Economics [3]

Emergency Health Services (40 credits required)

EHS 300
Emergency Health Services Theory and Practice [3]

EHS 301
Planning Emergency Health Systems [3]

EHS 302
Clinical Concepts and Practice [4]

EHS 351*
Financial Management and Budgeting [3]

EHS 352*
Microcomputer Applications to Health Services [3]

EHS 360
Instructional Issues in EHS [3]

EHS 400
Emergency Health Services Theory and Practice II [3]

EHS 430
Research Topics in Emergency Health Services [3]

EHS 450*
Emergency Health Services Practicum [15]

Total Credits: 120
(Lower and Upper Division)

* Alternate course work may satisfy the requirement.

EHS Paramedic Track Lower-Division Requirements

Mathematics/ Science Courses (21 credits required)

BIOL 100
Concepts of Biology [4]

BIOL 100L
Concepts of Biology Laboratory [2]

BIOL 251
Anatomy and Physiology of the Body I [3]

BIOL 251L
Anatomy and Physiology of the Body I Lab [1]

BIOL 252
Anatomy and Physiology of the Body II

BIOL 252L
Anatomy and Physiology of the Body II Lab [1]

MATH 115
Finite Mathematics [3]

OR

MATH 100
Contemporary
Mathematics [3] (If
required for Chemistry
pre- or co-requisites)

STAT 121
Introduction to
Statistics [4]

Social Sciences/ Political
Science (10 credits
required)

SOCY 101
Basic Concepts in
Sociology [3]

PSYC 100
Introduction to
Psychology [4]

PSYC 285
Abnormal Psychology [3]

**Others and Electives
(19 credits required)**

EHS 200
Introduction to Emergency
Health Services [3]

ENGL 100
Composition [3]

Electives [16]

Select from EHS electives and
physical education to com-
plete GFR.

**EHS Paramedic
Track Upper-Division
Requirements**

**Emergency Health Services
(25 credits required)**

EHS 300
EHS Theory and
Practice [3]

EHS 301
Planning EHS Systems [3]

EHS 302
Clinical Concepts and
Practice [4]

EHS 350
Supervision and
Operations of Emergency
Health Services [3]

EHS 351
Financial Management and
Budgeting [3]

EHS 352*
Microcomputer Application
to Health Services [3]

EHS 360
Instructional Issues in
Emergency Health
Services [3]

EHS 430*
Research Topics in EHS [3]

**Paramedic Clinical Courses
(42 credits required)**

EHS 471
EMS Systems and Patient
Assessment [3]

EHS 472
Principles of
Pharmacology [3]

EHS 473
Essentials of
Cardiology [3]

EHS 474
Introduction to Medical
Emergencies [3]

EHS 475
Managing Respiratory and
Critically Ill Patients [3]

EHS 476
Introduction to Trauma
Emergencies [3]

EHS 477
Special Populations
in EHS [3]

EHS 478
Field Operations
in EMS [3]

EHS 481
ALS Field and Clinical
Experience I [4]

EHS 482
ALS Field and Clinical
Experience II [6]

EHS 483
ALS Field and Clinical
Experience III [6]

EHS 491
Senior Paramedic
Seminar I [1]

EHS 492
Senior Paramedic
Seminar II [1]

Total Credits: 117
(Lower and Upper Division)

* Alternate course work may
satisfy the requirement.

Minor Program

To earn a minor in EHS, in
conjunction with a bachelor
of arts or science degree in
another discipline, students
must complete a minimum
of 18 credits, including:

EHS 200
Concepts of Emergency
Health Services [3]

EHS 302
Clinical Concepts and
Practice (EMT-Basic) [4]

Any four additional upper-
division EHS courses, except
internships, independent study
and courses open exclusively
to paramedic track students.
Students interested in EHS
as a minor should consult a
department advisor for as-
sistance. No courses taken
on a P/F basis shall count
toward the minor. A grade
of "C" or better is required
for all minor courses.

**Certificate of Public
Administration**

The Department of Emergency
Health Services, through a
cooperative agreement with
the Department of Political
Science, offers a Certificate
of Public Administration
and Policy. Students must
complete 36 credit hours
for the certificate. The fol-
lowing course work must
be completed to be eli-
gible for the certificate:

POLI 250
Public Administration [3]

POLI 350
The Policy-Making
Process [3]

POLI 352
Administrative Law [3]

POLI 353
Governmental
Budgeting [3]

POLI 354
Public Management and
Personnel Systems [3]

POLI 450
Administrative Problem
Handling [3] (or other Poli
course between 440-459)

Graduate Programs

The Department of Emergency
Health Services at UMBC also
offers a graduate program
leading to a master of science
degree. The concept of emer-
gency health services graduate
study at UMBC encompasses
all EMS system components.
The educational program is
primarily focused on preparing
professionals for leadership
roles requiring skills in plan-
ning, research and develop-
ment, and organizational
operations. The curriculum
offers three separate tracks
and is designed to provide
graduate-level training and edu-
cation to health care provid-
ers, researchers, educators,
policy-makers and administra-
tors. This degree is also a core
component of the UMB-UMBC
post-residency fellowship in
emergency medical services.

The three major tracks in the
program are: (1) EHS manage-
ment; (2) preventive medicine
and epidemiology and (3)
education. Track 1 is offered
via distance education and
enrolls students from around
the world. For tracks two and
three, the department has
designed a graduate program
incorporating offerings from
several university departments
at both UMBC and UMB;
these two tracks are set up
primarily as an on-campus
evening program. The EHS
degree sequence is designed
to fit the needs of part-time
as well as full-time students.

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Combined B.S./M.S.

Students in the EHS undergraduate program who meet specific qualifications may opt for a combined B.S./M.S. degree that can, under optimal conditions, be completed in five years total time for both degrees.

Part-time Option

The management track can be completed on a part-time basis. The paramedic track requires full-time status during the junior and senior years.

Special Opportunities

UMBC's close proximity to and cooperative arrangements with the University of Maryland, Baltimore (UMB) professional schools and the Maryland Institute for Emergency Medical Services Systems (MIEMSS) provides students unique opportunities for contacts and experiences. Included in the possibilities are: Maryland's internationally renowned R. Adams Cowley Shock Trauma Center, the National Study Center for Trauma/EMS and the University of Maryland School of Medicine.

Student Organizations

EHS majors, minors and graduate students are encouraged to participate in the Council of Majors.