

# ENVIRONMENTAL HEALTH 20



Saúde Ambiental



**DEPARTMENT OF ENVIRONMENTAL HEALTH  
COIMBRA HEALTH SCHOOL**

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## THE DEGREE IN ENVIRONMENTAL HEALTH

The creation of the degree in **Environmental Health** emerged from the need for the existence of more qualified professionals in this area in face of the developments that are taking place, particularly concerning the activities of identification, characterization and reduction of risk factors for health originated in the environment, the participation in environmental health and health education sessions in specific community groups and the development of measures for monitoring and health surveillance of systems, structures and activities with interaction with the environment.

## THE GRADUATE IN ENVIRONMENTAL HEALTH

The graduate in **Environmental Health**, with functional content published in Decree-Law No. 117/95 of May 30, performs monitoring and health surveillance actions of the factors of the biophysical environment (water, air, soil, biota, food, habitat and others resulting from human activity).

In this sense, he makes systematic observations on health and environment parameters, as well as its registration and also the analysis and interpretation of data from monitoring programs or other available sources.

He performs his activity with the primary objective of studying problems arising from the effects that the environment exerts on the physiological and mental state of man and of human communities and, also, the identification, analysis and mitigation or correction of risk factors for health.

Graduates in **Environmental Health** are qualified health professionals, and they are integrated into multidisciplinary teams and in the specific context of the biophysical environment factors, practice the following functions.

### PUBLIC HEALTH

- Health surveillance of the water supply systems for human consumption of water for recreational use (pools, water parks and bathing) and urban and industrial wastewater;
- Health surveillance of food establishments;
- Participation in inspections to verify the hygienic-sanitary structure conditions and functioning conditions of the food establishments;
- Food and utensils sampling for microbiological and chemical analysis;
- Licensing of public water use concerning the discharge of sewage from households, commercial and industrial establishments;
- Intervention in awareness raising/formation sessions on hygiene and food safety for food handlers to develop their professional skills.

### ENVIRONMENT

- Health surveillance of release of contaminants into water, air and soil;
- Collaboration with local authorities and other entities in identifying and reducing risk factors, resulting from pollution of the environment, for health;
- Health surveillance of collecting, transport and disposal of solid waste systems;
- Carrying out awareness raising/environmental and health education sessions among the population;
- Integration of teams for prevention and control of infection associated with health care;
- Collaboration in implementing and maintaining Environmental Management Systems.

### SAFETY AND HEALTH AT WORK

- Coordinating and monitoring the activities of prevention and protection against occupational hazards;
- Collaboration in the implementation and maintenance of the Management System for Safety and Health at Work;
- Coordination of Construction Safety at Work.

In conclusion, the graduate in **Environmental Health** can develop activities within the area of public health, safety and hygiene at work and of environmental protection. Professionals in **Environmental Health** may also intervene in the areas of research, management and education.

It is a profession in the process of growth and transformation, which field of action falls within the framework of disease prevention and health promotion. The evolution of these professionals will depend on the importance attributed to environmental factors and their impact on health.



## CAREER OPPORTUNITIES AND EMPLOYABILITY

At the end of the degree, the student is automatically qualified to obtain the Certificate of Professional Aptitude of:

- **Occupational Health and Safety at Work** (level 6), recognized by the Labour Conditions Authority;
- **Trainer**, recognized by the Institute of Employment and Professional Training.

As for Job opportunities, the graduate in **Environmental Health** has been exercising functions in:

- Public services from central, regional or local administration;
- Health Centres;
- Municipalities;
- Occupational Health Services (Safety and Hygiene at Work);
- Environmental Organizations (EOs);
- Consulting companies;
- Civil Construction Civil and Public Work;
- Insurance companies;
- Research and Development Centres;
- Occupational and Environmental Health Laboratories;
- Management Systems (ISO 9001; ISO 14001; ISO 22000; OHSAS 18001, among others)
- Business creation.

## PROTOCOLS AND PARTNERSHIPS

The Environmental Health Department has been developing several projects within the ambit of protocols and partnerships with local and national entities, namely:

- Municipalities (City Councils and Parish Councils);
- Authority for Working Conditions;
- Portuguese Environment Agency;
- Central Region Health Administration;
- International Federation of Environmental Health;
- National Association of Environmental Health;
- Hospitals;
- Elementary and Secondary Education Schools;
- Quercus;
- Faculty of Medicine from ABC – Sao Paulo (Brazil);
- University of Uberlândia (Brazil)
- Methodist University of Angola
- Technological and Science Institute of Mozambique
- Nebosh
- ERASMUS (Spain, Ireland, UK, Norway, Italy, Slovenia, Estonia)

## HONORS AND AWARDS

The Coimbra Health School, through the Environmental Health Department, was recognized by some public institutions, national and international, as a result of implemented good practice:

- **Eco-School** – Recognized by the Blue Flag for the Foundation for Environmental Education, having been the first Eco-School of the Higher Education in the World;
- **Safe and Healthy Workplace** (2011-2012) – Recognized by the European Agency for Safety and Health at Work.



## EUROPEAN PROGRAMS AND OTHER INTERNATIONAL INITIATIVES

The increasing speed, at which knowledge becomes obsolete, along with the rapid changes in how this knowledge is transmitted and renewed, demands the higher education sector to adopt new methods and engage to develop systems of lifelong learning. According to this, the Department of Environmental Health plays a key role in training highly qualified human resources, disseminating scientific discovery and advanced knowledge, adapting to the constantly emerging needs for new skills and qualifications, and educating future generations of citizens in a European context.

The Department of Environmental Health has participated in several initiatives aimed at creating opportunities, whether to students or professors, to get in touch with new realities that allow achieving the social, cultural, scientific, academic and personal development, in international contexts. Example of this is the participation in EUROWEEK, in the LEONARDO DA VINCI and ERASMUS Programs, NEBOSH Certification, in International Conferences, international technical visits (Brussels and Copenhagen) etc.



## CURRICULUM PLAN (DISPATCH NO. 27056/2008)

	Curricular Units	Type	Education (weekly hours)			ECTS
			Theory	T/P	Practice	
1 <sup>st</sup> year	Introduction to Environmental Health	Semester 1	30	15	15	6
	Epidemiology	Semester 1	30	15	15	3
	Planning and Land Use	Semester 1	30	15	15	5
	Sanitary and Environmental Hydraulic	Semester 1	30	15	15	5
	Psychology of Interpersonal Relations	Semester 1	30	15		5
	Anatomophysiology	Semester 1	45	15		3
	Environmental Physics	Semester 1	15	30		3
	General Pathology	Semester 2	30	15		3
	Environmental Chemistry	Semester 2	30	30		5
	Microbiology I	Semester 2	30	15	15	4
	Public Health	Semester 2	45	15		5
	Hydrogeology	Semester 2	30	15		5
	Internship I	Semester 2	Internship: 100   Tutorial Guidance: 30			8
2 <sup>nd</sup> year	Habitat Management	Semester 1	45	30	15	7
	Occupational Health	Semester 1	45	15		6
	Statistics	Semester 1	45	15	15	3
	Waste Management I	Semester 1	30	15	15	4
	Water Quality Management I	Semester 1	30	15	15	4
	Microbiology II	Semester 1	30	15	15	4
	Ergonomics	Semester 2	30	15	15	4
	Air Quality Management	Semester 2	30	30	15	7
	Research Methodology	Semester 2		15	30	3
	Ecotoxicology	Semester 2	30	15	15	6
	Waste Management II	Semester 2	30	15	15	4
	Water Quality Management II	Semester 2	30	15	15	4
	Applied Informatics	Semester 2		30	15	4
3 <sup>rd</sup> year	Municipal Environmental Intervention	Semester 1	15	30		2
	Intervention and Emergency Organization	Semester 1	30	15	15	4
	Psycho-sociology of Health	Semester 1	30	15		5
	Safety at Work	Semester 1	45	30	15	6
	Quality and Food Safety	Semester 1	45	15	15	6
	Law and Environmental Ethics	Semester 1	30	15		4
	Occupational and Environmental Noise (Optional) *	Semester 1	30	15		3
	Integrated Management Systems (Optional) *	Semester 1	30	15		3
	Hospital Infection (Optional) *	Semester 1	30	15		3
	Hygiene at Work	Semester 2	30	30	30	6
	Educational Psychology	Semester 2	15	15		3
	Assessment and Risk Control	Semester 2	30	15	15	6
	Education for Environmental Health	Semester 2		15	30	4
	Health Administration	Semester 2	30	15		2
	Environmental Management	Semester 2	30	30	15	6
	Construction Safety Coordination (Optional) *	Semester 2	30	15		3
Energy and Environment (Optional) *	Semester 2	30	15		3	
Certification of Food Quality (Optional) *	Semester 2	30	15		3	
4 <sup>th</sup> year	Applied Research in Environmental Health	Annual	T/P: 30   Tutorial Guidance: 60			8
	Training II	Annual	Training: 840   Tutorial Guidance: 90			52

\* In each semester the student must choose one of the optional curricular units.

## POSTGRADUATE COURSES AND TECHNICAL SPECIALIZATION COURSES

The Department of Environmental Health also presents the following options:

- Safety and Health at Work (MSc);

