

Course Title	Environmental and Occupational Health				
Course Code	MPH-531				
Course Type	Elective				
Level	2 nd Cycle				
Year / Semester	2 / 3				
Teacher's Name	Dr Souzana Achilleos				
ECTS	10	Lectures	12	Interactive learning activities	19
Course Purpose and Objectives	<p>The main objectives of the course are to:</p> <ul style="list-style-type: none"> • Describe how the natural and built environment can affect human health across different regions, populations, and professions. • Demonstrate deep understanding and describe in detail the effects of air pollution, toxic hazards, water pollution, electromagnetic radiation, noise pollution, poor housing conditions, poor sanitation, as well as climate change and environmental disasters in population health both in the developed and the developing world. • Demonstrate deep understanding and describe in detail the main factors and hazards affecting health and safety at the workplace, including methods and systems for preventing workplace injuries, as well as risk management, incident investigation, and monitoring at the workplace. 				
Learning Outcomes	<p>After completion of the course students are expected to be able to:</p> <ol style="list-style-type: none"> 1. Demonstrate deep understanding of the wider definition of the environment and how it can influence the health of populations. 2. Demonstrate deep understanding and describe in detail the main environmental determinants of disease and mortality. 3. Demonstrate deep understanding of the elements of risk assessment (hazard identification, exposure assessment, dose-response analysis, risk characterization) and the distinction between risk assessment and risk management. 4. Demonstrate deep understanding of the basic framework for cancer and non-cancer risk assessment. 5. Demonstrate deep understanding and describe in detail the effects of climate change in population health both in the developed and the developing world. 6. Demonstrate deep understanding and describe in detail the effects of air quality (including dust storms) in population health both in the developed and the developing world. 7. Demonstrate deep understanding and describe in detail the effects of toxic hazards (including heavy metals and carcinogenic agents) in health both in the developed and the developing world. 8. Demonstrate deep understanding and describe in detail the effects of inadequate and unsafe water supplies, poor sanitation, and water 				

	<p>pollution in population health both in the developed and the developing world.</p> <ol style="list-style-type: none">9. Demonstrate deep understanding and describe in detail the effects of ionizing and electromagnetic radiation in population health both in the developed and the developing world.10. Demonstrate deep understanding and describe in detail the effects of noise pollution due to traffic or other sources in population health both in the developed and the developing world.11. Demonstrate deep understanding and describe in detail the effects of inadequate housing, poor home conditions, and overcrowding in population health both in the developed and the developing world.12. Demonstrate deep understanding and describe in detail what “built environment” means, how it can promote health or create adverse health outcome from exposure to toxins and hazards or discouraging from outdoor activities.13. Demonstrate deep understanding and describe in detail the effects of environmental disasters (e.g. earthquakes, floods, tsunamis, nuclear disasters) in population health both in the developed and the developing world.14. Demonstrate deep understanding and describe in detail principles of sustainability and analyse the importance of environmental protection, safeguarding natural resources, and maintenance of ecological balance in sustainable development.15. Provide an overview and critically evaluate global initiatives aiming at improving public health through environmental protection and sustainable development (e.g. UN ‘Sustainable Development Goals’, UNEP ‘Healthy Planet, Healthy People’, WHO/UNEP ‘Health and Environment Linkages Initiative’).16. Demonstrate deep understanding and analyse the concept of Occupational Health.17. Demonstrate deep understanding and describe in detail the main factors affecting health and safety at the workplace.18. Demonstrate deep understanding and describe in detail the control of substances hazardous to health at the workplace.19. Demonstrate deep understanding and describe methods and systems for preventing workplace injuries, as well as risk management, incident investigation, and monitoring at the workplace.20. Demonstrate deep understanding of the importance of maintaining a safe workplace, as well as the role of workplace safety standards and regulatory requirements involved.21. Demonstrate deep understanding of the procedures and policies, as well as equipment, required for dealing with hazardous materials at the workplace.22. Describe the monitoring and control of environmental hazards (e.g. air pollution, food and water contamination, toxic hazards, radiation, etc.) and critically evaluate the use of legislation in environmental control.
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	23. Describe the use of health impact assessments for environmental and occupational hazards																	
Prerequisites	MPH-511, MPH- 512, MPH- 513, MPH- 521, MPH-522, MPH-523.	Required	None															
Course Content	<ol style="list-style-type: none"> 1. Introduction to environmental health 2. Risk assessment 3. Climate change and human health 4. Air quality 5. Water pollution & sanitation 6. Electromagnetic radiation & noise 7. Healthy homes and the built environment 8. Environmental emergencies and disasters 9. Global initiatives for improving public health through environmental protection and sustainable development 10. Introduction to Occupational Health 11. Control of substances hazardous to health at the workplace 12. Preventing workplace injuries: risk management, incident investigation, and monitoring 13. Procedures, legislations and policies for monitoring and controlling occupational and environmental hazards and maintaining public health. 																	
Teaching Methodology	This programme is delivered via distance learning (online) and includes recorded lectures, interactive online tutorials (Webinars) and discussion forums, as well as online exercises and other activities.																	
Bibliography	<p>Required Textbooks / Reading:</p> <table border="1"> <thead> <tr> <th>Title</th> <th>Author(s)</th> <th>Publisher</th> <th>Year</th> <th>ISBN</th> </tr> </thead> <tbody> <tr> <td>Environmental Health: From Global to Local (3rd ed.)</td> <td>Frumkin H.</td> <td>Wiley</td> <td>2016</td> <td>978-1118984765</td> </tr> <tr> <td>Oxford Handbook of Occupational Health (2nd ed.)</td> <td>Oxford University Press</td> <td>Oxford University Press</td> <td>2013</td> <td>978-0199651627</td> </tr> </tbody> </table>			Title	Author(s)	Publisher	Year	ISBN	Environmental Health: From Global to Local (3 rd ed.)	Frumkin H.	Wiley	2016	978-1118984765	Oxford Handbook of Occupational Health (2 nd ed.)	Oxford University Press	Oxford University Press	2013	978-0199651627
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Recommended Textbooks / Reading:				
Title	Author(s)	Publisher	Year	ISBN
Mastering Public Health: A Postgraduate Guide to Examinations and Revalidation, (2 nd ed.)	Lewis G, Sheringham J, Bernal JL, Crayford T	CRC Press	2014	978-1444152692
Basic Environmental Health	Yassi A, T Kjellstrom, T de Kok, TL Guidotti	Oxford University Press.	2001	978-0195135589
Occupational Health (Pocket Consultant) (5 th ed.)	Harrington JM, Aw TC, Gardiner K.	Wiley-Blackwell	2006	978-1405122214
Occupational Health: Management & Practice for Health Practitioners (4 th ed.)	Hattingh S, Acutt J.	Juta Academic	2011	978-0702186745
Assessment	Online quiz (formative) Coursework (1 environmental health assignment, 1 occupational health assignment) – 40% Final Exam –60%			
Language	English			