Course Title	Environmental and Occupational Health				
Course Code	MPH-531				
Course Type	Elective				
Level	2nd Cycle				
Year / Semester	2 / 3				
Teacher's Name	Dr Souzana Achilleos Dr Raoul Hecker				
ECTS	10	Lectures	13	Interactive learning activities	20
Course Purpose and Objectives	The main objectives of the course are to enable students to: • Analyse how the natural and built environment can affect human health across different regions, populations, and professions. • Evaluate the effects of air pollution, toxic hazards, water pollution, electromagnetic radiation, poor housing conditions, poor sanitation, as well as climate change and environmental disasters in population health both in the developed and the developing world. • Evaluate the main factors and hazards affecting health and safety at the workplace, and apply methods and systems for preventing workplace injuries, as well as risk management, incident investigation, and monitoring at the workplace.				
Learning Outcomes	After completion of the course students are expected to be able to: 1. Relate the wider definition of the environment to the health of populations. 2. Apply the general principles of toxicology to assess the effects of toxic agents in humans (risk assessment). 3. Evaluate the effects of outdoor and indoor air pollution on population health both in the developed and the developing world. 4. Evaluate the effects of toxic hazards (including heavy metals and carcinogenic agents) on health both in the developed and the developing world. 5. Evaluate the effects of inadequate and unsafe water supplies, poor sanitation, and water pollution on population health both in the developed and the developing world. 6. Critically analyse the interaction between the food system, the environment, and population health both in the developed and the developing world. 7. Evaluate the effects of ionizing and electromagnetic radiation on population health both in the developed and the developing world. 8. Apply the risk assessment method in technological disaster situations. 9. Evaluate the effects of inadequate housing, poor home conditions, and overcrowding in population health both in the developed and the developing world. 10. Evaluate how the "built environment" can promote health or create adverse health outcomes from exposure to toxins and hazards or discouraging outdoor activities.				

	11. Analyse the drivers of climate change (both natural and human-induced) and evaluate the effects of climate change on population health both in the developed and the developing world. 12. Distinguish between climate mitigation and adaptation actions, and articulate international (e.g., the Paris Agreement, Intergovernmental Panel on Climate Change), regional, national actions in response to the health impacts of climate change. 13. Evaluate the effects of climate change on the occurrence of natural disasters, emergency planning and preparedness, climate-health vulnerability and climate. 14. Apply the risk assessment method in natural disaster situations. 15. Analyse the importance of environmental protection, safeguarding natural resources, and maintenance of ecological balance in sustainable development. 16. Critically evaluate the concept of environmental justice as well as other 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', European Green Deal). 17. Design strategies for reducing the carbon footprint of health care delivery, from the hospital setting to the outpatient setting, based on "green health care" principles. 18. Analyse the concept of Occupational Health and the main factors affecting health and safety at the workplace. 19. Design strategies for the control of substances hazardous to health at the workplace. 20. Apply methods and systems for preventing workplace injuries, as well as risk management, incident investigation, and monitoring at the workplace. 21. Justify the importance of maintaining a safe workplace, and analyse the role of workplace safety standards and regulatory requirements involved. 22. Apply health impact assessments for environmental and occupational hazards. 23. Analyse the procedures and policies required for dealing with hazardous materials at the workplace, and critically evaluate the use of legislation in environmental control. 24. Analyse international disaster risk reduction strategies.		
Prerequisites	MPH-511	Elective	None
Course Content	1. Introduction to environmental health 2. Toxicology and Environmental Health 3. Air Pollution 4. Water Pollution and Sanitation 5. Food Systems 6. Radiation 7. Healthy Communities		

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<tr><td></td><td>8. Climate Change and Human Health
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, as well as environmental disasters, and maintaining public health.</td></tr>
<tr><td>Teaching Methodology</td><td>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.</td></tr>
<tr><td>Bibliography</td><td>Required Textbooks / Reading:
<table>
<tr><th>Title</th><th>Author(s)</th><th>Publisher</th><th>Year</th><th>ISBN</th></tr>
<tr><td>Environmental Health: From Global to Local (3rd ed.)</td><td>Frumkin H.</td><td>Wiley</td><td>2016</td><td>978-111898 4765</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>978-019965 1627</td></tr>
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Recommended Textbooks / Reading:
<table>
<tr><th>Title</th><th>Author(s)</th><th>Publisher</th><th>Year</th><th>ISBN</th></tr>
<tr><td>Mastering Public Health: A Postgraduate Guide to Examinations and Revalidation, (2nd ed.)</td><td>Lewis G, Sheringham J, Bernal JL, Crayford T</td><td>CRC Press</td><td>2014</td><td>978-144415 2692</td></tr>
<tr><td>Basic Environmental Health</td><td>Yassi A, T Kjellstrom, T de Kok, TL Guidotti</td><td>Oxford University Press.</td><td>2001</td><td>978-019513 5589</td></tr>
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	Occupational Health (Pocket Consultant) (5th ed.)	Harrington JM, Aw TC, Gardiner K.	Wiley-Blackwell	2006	978-140512 2214
	Occupational Health: Management & Practice for Health Practitioners (4th ed.)	Hattingh S, Acutt J.	Juta Academic	2011	978-070218 6745
Assessment	Online quiz (formative) Coursework (1 environmental health assignment) – 30% Mandatory interactive activities and webinar attendance/participation – 10% Final Exam –60%				
Language	English				