

Course Title	Environmental and Occupational Health				
Course Code	MPH-531				
Course Type	Required				
Level	2 <sup>nd</sup> Cycle				
Year / Semester	1 / 2				
Teacher's Name	Dr Souzana Achilleos				
ECTS	10	Lectures	13	Interactive learning activities	20
Course Purpose and Objectives	<p>The main objectives of the course are to:</p> <ul style="list-style-type: none"> <li>Describe how the natural and built environment can affect human health across different regions, populations, and professions.</li> <li>Demonstrate deep understanding and describe in detail 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.</li> <li>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.</li> </ul>				
Learning Outcomes	<p>After completion of the course students are expected to be able to:</p> <ol style="list-style-type: none"> <li>Demonstrate deep understanding of the wider definition of the environment and how it can influence the health of populations.</li> <li>Demonstrate deep understanding and describe the general principles of toxicology and the effects of toxic agents in humans.</li> <li>Demonstrate deep understanding of the role of toxicology in risk assessment.</li> <li>Demonstrate deep understanding and describe in detail the effects of outdoor and indoor air pollution in population health both in the developed and the developing world.</li> <li>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.</li> <li>Demonstrate deep understanding and describe in detail the effects of inadequate and unsafe water supplies, poor sanitation, and water pollution in population health both in the developed and the developing world.</li> <li>Demonstrate deep understanding and describe in detail the interaction between the food system, the environment, and population health both in the developed and the developing world.</li> <li>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.</li> <li>Demonstrate deep understanding of the use of risk assessment method in technological disaster situations.</li> </ol>				



	<ol style="list-style-type: none"> <li>10. 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.</li> <li>11. 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.</li> <li>12. Demonstrate deep understanding and describe in detail the effects of climate change in population health both in the developed and the developing world.</li> <li>13. Demonstrate deep understanding of the effects of climate change in the occurrence of natural disasters.</li> <li>14. Demonstrate deep understanding of the use of risk assessment method in natural disaster situations.</li> <li>15. 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.</li> <li>16. 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’).</li> <li>17. Demonstrate deep understanding and analyse the concept of Occupational Health.</li> <li>18. Demonstrate deep understanding and describe in detail the main factors affecting health and safety at the workplace.</li> <li>19. Demonstrate deep understanding and describe in detail the control of substances hazardous to health at the workplace.</li> <li>20. Demonstrate deep understanding and describe methods and systems for preventing workplace injuries, as well as risk management, incident investigation, and monitoring at the workplace.</li> <li>21. Demonstrate deep understanding of the importance of maintaining a safe workplace, as well as the role of workplace safety standards and regulatory requirements involved.</li> <li>22. Describe the use of health impact assessments for environmental and occupational hazards.</li> <li>23. Demonstrate deep understanding of the procedures and policies required for dealing with hazardous materials at the workplace, and critically evaluate the use of legislation in environmental control.</li> <li>24. Demonstrate deep understanding and describe international disaster risk reduction strategy.</li> </ol>		
Prerequisites	MPH-511	Required	None
Course Content	<ol style="list-style-type: none"> <li>1. Introduction to environmental health</li> <li>2. Toxicology and Environmental Health</li> </ol>		

	<ol style="list-style-type: none"> <li>3. Air Pollution</li> <li>4. Water Pollution and Sanitation</li> <li>5. Food Systems</li> <li>6. Radiation</li> <li>7. Healthy Communities</li> <li>8. Climate Change and Human Health</li> <li>9. Global initiatives for improving public health through environmental protection and sustainable development</li> <li>10. Introduction to Occupational Health</li> <li>11. Control of substances hazardous to health at the workplace</li> <li>12. Preventing workplace injuries: risk management, incident investigation, and monitoring</li> <li>13. Procedures, legislations and policies for monitoring and controlling occupational and environmental hazards, as well as environmental disasters, and maintaining public health.</li> </ol>															
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><b>Required Textbooks / Reading:</b></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 (3<sup>rd</sup> ed.)</td> <td>Frumkin H.</td> <td>Wiley</td> <td>2016</td> <td>978-1118984765</td> </tr> <tr> <td>Oxford Handbook of Occupational Health (2<sup>nd</sup> 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 <sup>rd</sup> ed.)	Frumkin H.	Wiley	2016	978-1118984765	Oxford Handbook of Occupational Health (2 <sup>nd</sup> ed.)	Oxford University Press	Oxford University Press	2013	978-0199651627
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	<b>Recommended Textbooks / Reading:</b>				
	<b>Title</b>	<b>Author(s)</b>	<b>Publisher</b>	<b>Year</b>	<b>ISBN</b>
	Mastering Public Health: A Postgraduate Guide to Examinations and Revalidation, (2 <sup>nd</sup> 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 <sup>th</sup> ed.)	Harrington JM, Aw TC, Gardiner K.	Wiley-Blackwell	2006	978-1405122214
Occupational Health: Management & Practice for Health Practitioners (4 <sup>th</sup> ed.)	Hattingh S, Acutt J.	Juta Academic	2011	978-0702186745	
<b>Assessment</b>	Online quiz (formative) Coursework (1 environmental health assignment) – 30% Mandatory interactive activities and webinar attendance/participation – 10% Final Exam –60%				
<b>Language</b>	English				