

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 Behrooz Behbod				
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"> • Demonstrate deep understanding and describe in detail the effects of climate change, global warming, air pollution, toxic hazards, water pollution, electromagnetic radiation, noise pollution, poor housing conditions, poor sanitation, as well as environmental emergencies and disasters in population health both in the developed and the developing world. • Demonstrate deep understanding and describe in detail the main factors affecting health and safety at the workplace and describe in detail the control of substances hazardous to health, 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 principles of sustainability and analyse the importance of environmental protection, safeguarding natural resources, and maintenance of ecological balance in sustainable development. 3. Describe and apply appropriately the concept of environmental hazard. 4. Demonstrate deep understanding and describe in detail the main environmental determinants of disease and mortality. 5. Demonstrate deep understanding and describe in detail the effects of climate change and global warming in population health both in the developed and the developing world. 6. Demonstrate deep understanding and describe in detail the effects of air pollution (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 ionizing and electromagnetic radiation in population health both in the developed and the developing world. 9. Demonstrate deep understanding and describe in detail the effects of 				

	<p>noise pollution due to traffic or other sources in population health both in the developed and the developing world.</p> <p>10. Demonstrate deep understanding and describe in detail the effects of inadequate housing, poor home conditions, overcrowding, and indoor air pollution in population health both in the developed and the developing world.</p> <p>11. 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.</p> <p>12. Demonstrate deep understanding and describe in detail the effects of environmental emergencies and disasters (e.g. earthquakes, floods, tsunamis, nuclear disasters) in population health both in the developed and the developing world.</p> <p>13. 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' and WHO/UNEP 'Health and Environment Linkages Initiative').</p> <p>14. Demonstrate deep understanding and analyse the concept of Occupational Health.</p> <p>15. Demonstrate deep understanding and describe in detail the main factors affecting health and safety at the workplace.</p> <p>16. Demonstrate deep understanding and describe in detail the control of substances hazardous to health at the workplace.</p> <p>17. Demonstrate deep understanding and describe methods and systems for preventing workplace injuries, as well as risk management, incident investigation, and monitoring at the workplace.</p> <p>18. Demonstrate deep understanding of the importance of maintaining a safe workplace, as well as the role of workplace safety standards and regulatory requirements involved.</p> <p>19. Demonstrate deep understanding of the procedures and policies, as well as equipment, required for dealing with hazardous materials at the workplace.</p> <p>20. Describe and critically evaluate how initiatives or policies relevant to the environment may affect population health.</p> <p>21. 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.</p> <p>22. Describe the use of health impact assessments for environmental and occupational hazards</p>		
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 the environment and health 2. Environmental protection and sustainable development 3. Distal environmental risks and hazards I: air pollution, climate 		

	<p>change, and global warming</p> <ol style="list-style-type: none"> 4. Distal environmental risks and hazards II: water pollution and contamination 5. Distal environmental risks and hazards III: electromagnetic radiation 6. Proximal environmental risks and hazards I: noise pollution 7. Proximal environmental risks and hazards II: poor housing conditions and indoor air pollution 8. Proximal environmental risks and hazards III: unsafe water supplies and poor sanitation 9. Environmental emergencies and disasters 10. Global initiatives for improving public health through environmental protection and sustainable development 11. Introduction to Occupational Health 12. Health and Safety at the workplace 13. Control of substances hazardous to health at the workplace 14. Preventing workplace injuries: risk management, incident investigation, and monitoring 15. Workplace safety standards and regulatory requirements 16. 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> <p>Recommended 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>Mastering Public Health: A Postgraduate Guide to</td> <td>Lewis G, Sheringham J, Bernal JL, Crayford T</td> <td>CRC Press</td> <td>2014</td> <td>978-1444152692</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	Title	Author(s)	Publisher	Year	ISBN	Mastering Public Health: A Postgraduate Guide to	Lewis G, Sheringham J, Bernal JL, Crayford T	CRC Press	2014	978-1444152692
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	Examinations and Revalidation, (2 nd ed.)				
	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
	Preventing disease through healthy environments: a global assessment of the burden of disease from environmental risks	Prüss-Ustün A, Wolf J, Corvalán C, Bos R, Neira M.	World Health Organization	2016	978-9241565196
	Public health impact of chemicals: knowns and unknowns	WHO/FWC/PHE /EPE	World Health Organization	2016	n/a
	Burning Opportunity: Clean Household Energy for Health,	World Health Organization	World Health Organization	2016	978-9241565233

	Sustainable Development, and Wellbeing of Women and Children				
	Healthy Planet, Healthy People [ONLINE]	Ebtekar M, Fahmy K, Neira M, Cromnier N.	United Nations Environment Programme	2015	ISSN: 1013-7394
	Progress on Sanitation and Drinking Water	WHO/Unicef	World Health Organization	2015	978-9241509145
Assessment	Online quiz (formative) Coursework (1 environmental health assignment, 1 occupational health assignment) – 40% Final Exam –60%				
Language	English				