

<b>Semester</b>	3		
<b>Course Code:</b>	ENCM 21722		
<b>Course Name:</b>	Environment and Human Health		
<b>Credit Value:</b>	2		
<b>Status:</b>	Compulsory		
<b>Pre-requisite:</b>	ENCM 12742		
<b>Co-requisite:</b>	None		
<b>Hourly Breakdown:</b>	Theory	Practical	Independent Learning
	24	18	58

**Intended Learning Outcomes:**

After completion of this course unit, student will be able to;

1. describe key concepts and terminology in environment and human health disciplines,
2. explain the impact of man-made and impaired environments on physical and psychological well-being of humans,
3. identify the effects of environmental contaminants on humans,
4. demonstrate basic skills in identification of parasites and vectors causing human ill-health conditions,
5. demonstrate the knowledge on operative regulatory measures of environment and human health importance, and
6. propose approaches to improve human health based on environmental conservation and management.

**Course Content:**

Introduction to environmental health. Importance of environment in human health. Impact of altered ecosystem functions on human health. Contemporary issues of global public health. Environmental infectious diseases: vectors and vector-borne diseases, water-borne and food-borne parasites, zoonotic diseases, biological pollutants. Environmental risks and non-communicable diseases: common health issues linked with environment, built environment, pollution, roles of selected pollutants /radiation/ nanomaterials/heavy metals/ persistent organic pollutants/agrochemicals as carcinogens /mutagens / teratogens / neurotoxins/immunotoxins and endocrine disruptors. Children's environmental health and diseases: environmental exposures, poor sanitation, vectors and parasites, hazards, waste, radiation. Impact of physical, build, social and cultural environment on physical and psychological well-being. Gene-environment interactions: environmental exposure induced-epigenetic changes, heredity, polygenic and multifactorial diseases. Modified Organisms on the environment and human health, Biological warfare and bioterrorism, National and international environmental health regulatory programs and organizations, Environmental health policies and legislations. Current topics in environment and public health.

Practical sessions include identification of vector mosquitoes, dengue vector surveillance, vector community study and parasites of high public health importance.			
<b>Teaching /Learning Methods:</b> A combination of lectures, laboratory practical sessions, case studies and online resources.			
<b>Assessment Strategy:</b> Continuous assessment and end of semester examination. Percentage given for each sub-component indicates the percent contribution to the final marks.			
Continuous Assessment 40%		Final Assessment 60%	
Details:		Theory 60	Practical - Other -
Assignments 15			
Case study-presentation 15			
Practical reports 10			
<b>Recommended Readings:</b>			
1. Fris R.H. (2018) Essentials in Environmental Health, 3rd Edition, Jones & Bartlett Learning.			
2. Eldridge, B.F. & Edman, J.D. (2004). Medical Entomology: A text book on public health and veterinary problems caused by arthropods. Kluwer Academic Publishers.			
3. U.S. Environmental Protection Agency (2017). NIEHS/EPA Children's Environmental Health and Disease Prevention Research Centers Impact Report: Protecting children's health where they live, learn, and play.			
4. Selected scholarly review and research articles on environment and public health.			