

Semester:	6		
Course Code:	ENCM 32782		
Course Name:	Hazards and Disaster Risk Management		
Credit Value:	2		
Status:	Optional		
Pre-requisites:	ENCM 12752		
Co-requisites:	None		
Hourly Breakdown:	Theory	Practical	Independent Learning
	30	-	70
Intended Learning Outcomes:			
<p>After completion of this course unit, the student will be able to;</p> <ol style="list-style-type: none"> 1. describe elements/components of hazards and disaster risk management, 2. undertake hazard zonation, vulnerability assessment and risk evaluation for a given example of a hazard 3. discuss structural and non-structural mitigation measures of risk reduction, 4. analyze and explain practical issues of disaster management, and 5. communicate current natural disaster risk management approaches as appropriate to Sri Lanka. 			
Course Content:			
<p>Scope and objectives of disaster management, natural disasters vs. man-made disasters, environmental migrants, climate refugees, disaster relief systems. Nature of hazards: hydrometeorological, geological and environmental & technical, Risk and vulnerability of natural disasters. Elements/components of disaster management: preparedness, response, recovery, prevention and mitigation of natural disasters. Disaster management system; disaster prediction, warning, management, and relief. Technologies for disaster management: mapping, remote sensing, communication and information management. Building resilient human communities for natural disasters: structural and non-structural measures. Introduce ecosystem-based disaster risk reduction (Eco DRR). Hazard and vulnerability mapping and, developing risk maps. Rehabilitation, reconstruction and recovery in natural disasters. Loss and damage assessment approaches in disaster.</p> <p>Global frameworks for disaster management: Sendai Framework for Disaster Risk Reduction 2015-2030, Legal provisions and institutional framework, knowledge management and Incident Command Systems (ICS) and issues in disaster management.</p>			
Teaching /Learning Methods:			
A combination of interactive teaching sessions, computer based learning, self-studies, field based assignments and small group discussions.			
Assessment Strategy:			
Continuous assessment and end of semester examination. Percentage given for each sub-component indicates the percent contribution to the final marks.			
	Continuous Assessment 30 %	Final Assessment 70 %	
Details:	Theory 70	Practical -	Other -

Quizzes	10			
Assignments	20			

Recommended Readings:

1. Collins L. R. (2000). Disaster Management and Preparedness. CRC Press.
2. Singh R. B. (2006). Natural Hazards and Disaster Management: Vulnerability and Mitigation. Rawat publication.
3. Venkataraman L. & J. Schaake (2001). Surface Hydrology, Meteorology and Climate: Observations and Modelling, American Geographical Union.
4. Ranke U. (2016) Natural Disaster Risk Management: Geosciences and Social Responsibility. Springer Cham Heidelberg New York.