

## THE EDUCATION UNIVERSITY OF HONG KONG

### Course Outline

#### Part I

<b>Programme Title</b>	:	4/5-year Full Time Undergraduate Programmes
<b>Programme QF Level</b>	:	5
<b>Course Title</b>	:	Disaster Recovery after Natural Hazards and Global Crisis 自然災害與全球危機後的災後重建
<b>Course Code</b>	:	GEH1052
<b>Department</b>	:	Curriculum and Instruction
<b>Credit Points</b>	:	3
<b>Contact Hours</b>	:	39
<b>Pre-requisite(s)</b>	:	NA
<b>Medium of Instruction</b>	:	CMI and EMI
<b>Course Level</b>	:	1

#### Part II

The University's Graduate Attributes and seven Generic Intended Learning Outcomes (GILOs) represent the attributes of ideal EdUHK graduates and their expected qualities respectively. Learning outcomes work coherently at the University (GILOs), programme (Programme Intended Learning Outcomes) and course (Course Intended Learning Outcomes) levels to achieve the goal of nurturing students with important graduate attributes.

In gist, the Graduate Attributes for Undergraduate, Taught Postgraduate and Research Postgraduate students consist of the following three domains (i.e. in short "PEER & I"):

- Professional Excellence;
- Ethical Responsibility; &
- Innovation.

The descriptors under these three domains are different for the three groups of students in order to reflect the respective level of Graduate Attributes.

The seven GILOs are:

1. Problem Solving Skills
2. Critical Thinking Skills
3. Creative Thinking Skills
- 4a. Oral Communication Skills
- 4b. Written Communication Skills
5. Social Interaction Skills
6. Ethical Decision Making

## 7. Global Perspectives

### 1. Course Synopsis

This course addresses the issue of the interactions and relations between society and nature through examining the physical and human dimensions of natural hazards and global crisis. It covers 1) categories and causes of natural hazards, such as geological, meteorological, COVID-19 pandemic, and hydrological hazards; 2) their impacts on human society; 3) how individuals, groups and governments respond to disasters; and 4) mitigation efforts, including psychological recovery, community reconstruction, existing and emerging public policy issues, policies in emergency management, and technology developed to forecast, prevent, and mitigate the impact of natural hazards and global crisis upon the world.

Multiple teaching strategies will be used, such as, guest lectures, debates, group project presentations, issue-based learning, and case studies, to engage students in deep dialogue. Students will be expected to demonstrate a good understanding of the basic concepts of natural hazards and the global crisis. Students will be able to discuss how a natural hazard turns into a global crisis in different aspects by examining the multiple impact of COVID-19 crisis on public health, economy, and education. Students will also be expected to analyse recovery and mitigation issues adequately, critically evaluate the effectiveness of mitigation strategies, and examine their personal roles and responsibilities as a local and global citizen.

### 2. Course Intended Learning Outcomes (CILO<sub>s</sub>)

*Upon completion of this course, students will be able to:*

- CILO<sub>1</sub> Examine the concepts, causes, and impacts of natural hazards and how it can trigger global crisis, such as covid-19 crisis
- CILO<sub>2</sub> Demonstrate the competence in analyzing and systematically enquiring about responses and recovery issues related to natural disasters
- CILO<sub>3</sub> Evaluate the effectiveness of reconstruction strategies and propose possible mitigation plans for local communities
- CILO<sub>4</sub> Be more aware of the personal responsibilities as a local and global citizen and appreciate the efforts people have made during reconstruction
- CILO<sub>5</sub> Reflect on the relationship between humans and nature critically (e.g. from multiple perspective: social, environment, psychological and technological)

### 3. Content, CILOs and Teaching & Learning Activities

Course Content	CILOs	Suggested Teaching & Learning Activities
<p><b>1. Introduction:</b></p> <ul style="list-style-type: none"> <li>- Definition of natural hazards</li> <li>- Categories of natural hazards</li> <li>- Related issues about natural hazards</li> <li>- Definition of Global Crisis: Magnitude and dimensions of Global Crisis</li> <li>- Covid-19 and Global Crisis</li> </ul>	CILO <sub>1</sub>	<ul style="list-style-type: none"> <li>• Lectures</li> <li>• Multi-media</li> </ul>
<p><b>2. Natural Hazards:</b> types, causes, and impacts</p> <ul style="list-style-type: none"> <li>- Geological hazards: Case studies (e.g. Haiti earthquake in 2010; Hualien earthquake in 2018; Indonesia earthquake in 2018; Si Chuan Earthquake in 2008; Taiwan landslide in 2009)</li> <li>- Meteorological hazards: Case studies: typhoons in Hong Kong; tornadoes in Japan</li> <li>- Hydrological hazards: Case studies (e.g., Japan Flooding and Mudslides in 2018, Pakistan floods in 2010; Floods in South Asia in 2007; Droughts in Southeast Asia in 2005, Droughts in North American in 2012-13)</li> <li>- Biological hazards:  Case studies (e.g. Hong Kong SARS in 2003, and SARS-CoV-2/ Covid-19 in 2019) and other past and recent cases illustrating each type of hazard (e.g., Atmospheric, Hydrologic, Geologic, Biologic and Technologic)</li> <li>- Explore the relationship between the impact of humans and the occurrence of natural hazards</li> </ul>	CILO <sub>1&amp;5</sub>	<ul style="list-style-type: none"> <li>• Guest speakers</li> <li>• Multi-media</li> <li>• Lectures</li> <li>• Case studies</li> <li>• Group discussions</li> </ul>

<ul style="list-style-type: none"> <li>- Critically analyze human activities that increase the risk of natural disasters</li> <li>- Understand some hazards that may be induced by humans and suggest possible prevention and mitigation strategies</li> </ul>		
<p><b>3. Covid-19 Crisis:</b></p> <ul style="list-style-type: none"> <li>- How a natural hazard triggers different crises, e.g. health crisis, social crisis</li> <li>- Examine the multiple impacts of covid-19 crisis in public health, economy, and education across the globe</li> </ul>	CILO <sub>1</sub>	<ul style="list-style-type: none"> <li>• Lectures</li> <li>• Multi-media</li> </ul>
<p><b>4. Human Response to Disasters:</b></p> <ul style="list-style-type: none"> <li>- Response by individuals, support groups, government, and local and international organizations</li> <li>- Components of disaster response (risk communication/ interpretation, working with the media, Incident Command System)</li> <li>- The effectiveness of the response actions by different stakeholders, in particular focusing on the critical role of government and public policy in emergency management.</li> </ul>	CILO <sub>2&amp;5</sub>	<ul style="list-style-type: none"> <li>• Multi-media</li> <li>• Issue-based learning</li> <li>• Case studies</li> <li>• Debates</li> <li>• Group discussions</li> </ul>
<p><b>5. Mitigation Efforts and Post-Disaster Recovery:</b></p> <ul style="list-style-type: none"> <li>- Stages of post-disaster recovery</li> <li>- Scope of mitigation efforts <ul style="list-style-type: none"> <li>Personal (psychological recovery)</li> <li>Community (social reconstruction)</li> <li>Government (public policy and emergency management, including policy planning, formulation, implementation, and constraints)</li> <li>Technology (existing techniques to forecast, prepare, prevent, and mitigate hazards)</li> </ul> </li> <li>- In the long term, what should be done to avoid or reduce the negative influence of</li> </ul>	CILO <sub>3,4&amp;5</sub>	<ul style="list-style-type: none"> <li>• Multi-media</li> <li>• Project-based inquiry</li> <li>• Case studies</li> <li>• Group discussions</li> <li>• Debates</li> </ul>

natural disasters on humans. Individual knowledge, technology, or political systems?		
<b>6. Summary and Consolidation:</b> - Discussion on the interaction and relation between humans and nature	CILO <sub>4&amp;5</sub>	• Group discussions

#### 4. Assessment

Assessment Tasks	Weighting (%)	CILO
<b>1. Participation Forum:</b> Online discussion of particular issues on frequently-used types of natural hazards and post-disaster recovery strategies from multiple perspectives (e.g., social, environmental, psychological) via the Participation Forum on Moodle.	20%	CILO <sub>1,2&amp;3</sub>
<b>2. Group Report:</b> Each group is responsible for making a presentation on one case for a natural disaster. Presentation to last for 40 minutes, including 35 minutes of presentation and 5 minutes of Q&A.	40%	CILO <sub>1, 2, 3, 4&amp;5</sub>
<b>3. Final Paper: (about 2000 words)</b> Part 1: Write a paper on a case of natural disaster (that has not been covered by any one of the group presentations). The paper should give some basic information about the disaster and focus on 1 or 2 particular issues for in-depth discussion. Part 2: Summarize and critically reflect on the most significant learning experience of you from the course as a whole.	40%	CILO <sub>1,2,3,4&amp;5</sub>

#### 5. Required Text(s)

Nil

#### 6. Recommended Readings

- Ainuddin, S., Routray, J. K., & Ainuddin, S. (2015). Operational indicators for assessing vulnerability and resilience in the context of natural hazards and disasters. *International Journal of Risk Assessment and Management*, 18(1), 66-88.
- Alexander, D. C. (2017). *Natural disasters*. London: Routledge.
- Blaikie, P., Cannon, T., Davis, I., & Wisner, B. (2014). *At risk: natural hazards, people's vulnerability and disasters*. London: Routledge.
- Bullock, J. A., Haddow, G. D., & Haddow, K. S. (Eds.). (2008). *Global warming, natural hazards, and emergency management*. Boca Raton, FL: CRC Press.
- Cohrs, J. C., Christie, D. J., White, M. P., & Das, C. (2013). Contributions of positive psychology to peace: Toward global well-being and resilience. *American Psychologist*, 68(7), 590-600.
- Cox, R. S., Scannell, L., Heykoop, C., Tobin-Gurley, J., & Peek, L. (2017). Understanding youth disaster recovery: The vital role of people, places, and activities. *International Journal of Disaster Risk Reduction*, 22, 249-256.
- Cutter, S. L. (2017). The perilous nature of food supplies: Natural hazards, social vulnerability, and disaster resilience. *Environment: Science and Policy for Sustainable Development*, 59(1), 4-15.
- Danielson, C. K., Cohen, J. R., Adams, Z. W., Youngstrom, E. A., Soltis, K., Amstadter, A. B., & Ruggiero, K. J. (2017). Clinical decision-making following disasters: Efficient identification of PTSD risk in adolescents. *Journal of Abnormal Child Psychology*, 45(1), 117-129.
- Djalante, R. (2018). A systematic literature review of research trends and authorships on natural hazards, disasters, risk reduction and climate change in Indonesia. *Natural Hazards and Earth System Sciences*, 18(6), 1785-1810.
- Elliott, J. R., & Howell, J. (2017). Beyond disasters: A longitudinal analysis of natural hazards' unequal impacts on residential instability. *Social Forces*, 95(3), 1181-1207.
- Feder, A., Ahmad, S., Lee, E. J., Morgan, J. E., Singh, R., Smith, B. W., ...& Charney, D. S. (2013). Coping and PTSD symptoms in Pakistani earthquake survivors: Purpose in life, religious coping and social support. *Journal of Affective Disorders*, 147(1-3), 156-163.
- Gaillard, J. C. (2016). Natural hazards and disasters. In R. Douglas (Ed.), *International encyclopedia of geography: People, the earth, environment and technology*, (pp.1-15). Chichester, UK ; Hoboken, NJ : John Wiley & Sons.
- Gallina, V., Torresan, S., Critto, A., Sperotto, A., Glade, T., & Marcomini, A. (2016). A review of multi-risk methodologies for natural hazards: Consequences and challenges

- for a climate change impact assessment. *Journal of Environmental Management*, 168, 123-132.
- Gordon-Hollingsworth, A. T., Yao, N., Chen, H., Qian, M., & Chen, S. (2018). Understanding the impact of natural disasters on psychological outcomes in youth from mainland China: A meta-analysis of risk and protective factors for post-traumatic stress disorder symptoms. *Journal of Child & Adolescent Trauma*, 11(2), 205-226.
- Hamama-Raz, Y., Palgi, Y., Leshem, E., Ben-Ezra, M., & Lavenda, O. (2017). Typhoon survivors' subjective wellbeing—A different view of responses to natural disaster. *PloS one*, 12(9). Retrieved from <https://doi.org/10.1371/journal.pone.0184327>
- Hyndman, D., & Hyndman, D. (2016). *Natural hazards and disasters*. Boston: Cengage Learning.
- Keller, E. A., & DeVecchio, D. E. (2016). *Natural hazards: earth's processes as hazards, disasters, and vatastrophes*. New York : Routledge.
- Knez, I., Butler, A., Sang, Å. O., Ångman, E., Sarlöv-Herlin, I., & Åkerskog, A. (2018). Before and after a natural disaster: Disruption in emotion component of place-identity and wellbeing. *Journal of Environmental Psychology*, 55, 11-17.
- Le Brocque, R., De Young, A., Montague, G., Pocock, S., March, S., Triggell, N., ... & Kenardy, J. (2017). Schools and natural disaster recovery: The unique and vital role that teachers and education professionals play in ensuring the mental health of students following natural disasters. *Journal of Psychologists and Counsellors in Schools*, 27(1), 1-23.
- Noy, I. (2016). A global comprehensive measure of the impact of natural hazards and disasters. *Global Policy*, 7(1), 56-65.
- OECD. (2021). *OECD Science, Technology and Innovation Outlook 2021 Times of Crisis and Opportunity*. OECD Publishing.
- OECD. (2021). *OECD Skills Studies Towards a Skills Strategy for Southeast Asia Skills for Post-COVID Recovery and Growth*. OECD Publishing.
- Paton, D., & Johnston, D. (2017). *Disaster resilience: An integrated approach*. Springfield, IL: Charles C Thomas Publisher.
- Rosellini, A. J., Dussailant, F., Zubizarreta, J. R., Kessler, R. C., & Rose, S. (2018). Predicting posttraumatic stress disorder following a natural disaster. *Journal of Psychiatric Research*, 96, 15-22.
- Sharma, A., & Kar, N. (2018). Posttraumatic stress, depression, and coping following the 2015 Nepal earthquake: A study on adolescents. *Disaster Medicine and Public Health*

*Preparedness*, 1-7.

Simmons, K. T., & Douglas, D. Y. (2018). After the storm: Helping children cope with trauma after natural disasters. *Communique*, 46(5), 23-25.

Sonuga-Barke. (2021). "School of hard knocks" – what can mental health researchers learn from the COVID-19 crisis? *Journal of Child Psychology and Psychiatry*, 62(1), 1–4.  
<https://doi.org/10.1111/jcpp.13364>

Vazquez, C. (2017). What does positivity add to psychopathology? An introduction to the special issue on 'Positive emotions and cognitions in clinical psychology'. *Cognitive Therapy and Research*, 41(3), 325-334.

Weems, C. F., Osofsky, J. D., Osofsky, H. J., King, L. S., Hansel, T. C., & Russell, J. D. (2018). Three-year longitudinal study of perceptions of competence and well-being among youth exposed to disasters. *Applied Developmental Science*, 22(1), 29-42. 丁仁東 (2007) :《自然災害：大自然反撲》，台北市，五南圖書。

王靜愛、史培軍、王平、王瑛(2006) :《中國自然災害時空格局》，北京，科學出版社。

沈金瑞(2009) :《自然災害學》，長春，吉林大學出版社。

張先起，朱國宇(主編)(2011) :《常見重大自然災害及搶險救護》，鄭州，黃河水利出版社。

## 7. Related Web Resources

香港無國界工程師 <http://www.ewb.hk/>

災後心理輔導協會 <http://www.pccnhk.org/>

香港醫療動員會 <http://hkmmc.org/>

紅十字國際委員會 <http://www.icrc.org/chi/>

Oxfam <http://www.oxfam.org.hk/tc/emergencies.aspx>

<http://naturaldisasters.com/>

<http://environment.nationalgeographic.com/environment/natural-disasters/>

<http://www.bt.cdc.gov/disasters/>

<http://www.globaleducation.edna.edu.au/globaled/go/pid/308>

<http://www.apa.org/topics/disasters/index.aspx>

[http://home.vicnet.net.au/~hmvkhelp/hwh\\_natdis.htm](http://home.vicnet.net.au/~hmvkhelp/hwh_natdis.htm)

<http://www.huffingtonpost.com/news/natural-disasters>

<http://www.apa.org/topics/ptsd/>

<http://www.apa.org/ptsd-guideline/>

[https://www.redcross.org.hk/en/psychological/related\\_links.html](https://www.redcross.org.hk/en/psychological/related_links.html)

[http://www.who.int/mental\\_health/publications/guide\\_field\\_workers/en/](http://www.who.int/mental_health/publications/guide_field_workers/en/)

<https://ideas.ted.com/7-ways-to-practice-emotional-first-aid/>



<https://www.psychologies.co.uk/emotional-first-aid>

<https://www.cdc.gov.tw/EpidemicTheme/List/AVUZAHEYB4qppX9rji4SqpQ>

## **8. Related Journals**

American Journal of Disaster Medicine

Applied Developmental Science

Disasters

International Journal of Disaster Risk Reduction

International Journal of Disaster Risk Science

Journal of Development Economics

Journal of Environmental Management

Journal of Environmental Psychology

Journal of Geography & Natural Disasters

Journal of Natural Disaster Science

Journal of Psychiatric Research

Natural Hazards Review

## **9. Academic Honesty**

The University adopts a zero tolerance policy to plagiarism. For the University's policy on plagiarism, please refer to the Policy on Academic Honesty, Responsibility and Integrity with Specific Reference to the Avoidance of Plagiarism by Students (<https://www.eduhk.hk/re/modules/downloads/visit.php?cid=9&lid=89>). Students should familiarize themselves with the Policy.

## **10. Others**

Nil