The Hong Kong Polytechnic University

Subject Description Form

Please read the notes at the end of the table carefully before completing the form.

Subject Code	APSS1A27
Subject Title	Preparing for Natural Disasters in the Chinese Context
Credit Value	3
Level	1

GUR Requirements Intended to Fulfill	This subject intends to fulfill the following requirement(s) :
	
	☐ **Healthy Lifestyle**
	☐ **AI and Data Analytics (AIDA)**
	☐ **Innovation and Entrepreneurship (IE)**
	☐ **Languages and Communication Requirement (LCR)**
	☐ **Leadership Education and Development (LEAD)**
	☐ **Service-Learning**
	☒ **Cluster-Area Requirement (CAR)**
	   ☒ Human Nature, Relations and Development [CAR A]
	   ☐ Science, Technology and Environment [CAR D]
	   ☐ Chinese History and Culture [CAR M]
	   ☐ Cultures, Organizations, Societies and Globalization [CAR N]
	☐ **China-Study Requirement**
	   ☒ Yes or ☐ No
	☐ **Writing and Reading Requirements**
	   ☒ English or ☐ Chinese

Pre-requisite / Co-requisite/ Exclusion	NIL

Assessment Methods

100% Continuous Assessment	Individual Assessment	Group Assessment
1. Small Group Project		45%
2. Individual Written Assignment [ER assessment: 35% to be assessed by Subject Teacher & 10% to be assessed by ELC]	45%	
3. Quiz [ER assessment]	10%	

- The grade is calculated according to the percentage assigned;
- The completion and submission of all component assignments are required for passing the subject; and

- Student must pass all component(s) if he/she is to pass the subject.

Objectives	This module has four interconnected objectives: 1. To raise students' awareness of natural disaster risks using China as case study; 2. To sharpen students' perception and knowledge of the complex and volatile relationships between human activities and environment; 3. To heighten students' local and international perspective on climate change and sustainable development; and 4. To shape students' behaviours in a socially responsible and ethical manner to enhance natural disaster risk reduction.
Intended Learning Outcomes	Upon completion of this module, students will be able to: a. Recognize the typical natural hazards that have an impact on China in the past and at present, such as floods, drought, earthquake, landslide and so on; b. Describe the impact of natural disasters on economic and community development, and relevant measures that could reduce disaster risks; c. Report the current climate changes, environmental problems and economic needs that the Chinese Mainland encounters from a sustainable developmental perspective, and describe disaster risk reduction measures; d. Relate the ethical values, knowledge and skills acquired in this module and other subjects of their own discipline/concentration; e. Relate the knowledge obtained from this module to their personal, professional and future career development; and f. Enhance their skills in English Reading and Writing

Subject Synopsis/ Indicative Syllabus	The syllabus would focus on a range of disasters related concepts and topics:
	
	1. Introduction to natural hazards, exposures, and risks
	   - Basic concept of hazards, exposures, response and risks
	   - Disaster cycle
	   - Type, frequency, formation of disasters
	   - Ethics in disasters
	2. Introduction to typical natural disasters in China and their impact on:
	   - Economy
	   - Health
	   - Society
	3. Disaster Resilient Cities and Communities
	   - Theory and practice of resilient cities and communities
	   - Resilient Cities Making and local governance
	   - Principles of building disaster resilient communities
	   - Making China a Resilient City
	4. Climate change and disaster risk reduction (DRR) in China
	   - Human activities and climate change

- Mitigation and adaptation to climate change
- International climate change and DRR frameworks, agreements and collaboration
- Coherence of climate change goals and DRR

5. DRR and salient sectors in China (to select accordingly to student profile)
   - Chinese Government Disaster Management System
   - Business continuity and resilient economy
   - Climate risk management as a cross-cutting issues for all sectors
   - Education (safe schools)
   - Health (safe hospitals)
   - Food security, agriculture and livelihoods
   - Infrastructure development
   - Land use planning
   - Tourism
   - Urban development
   - Social protection

6. Disaster and Vulnerable Groups in China (to select accordingly to student profile)
   - Children & youth
   - Women
   - The elderly
   - The disabled
   - Ethical considerations in working with vulnerable groups
   - Others (e.g., migrants, poor etc)

7. Disaster and Sustainable Development
   - Making disaster risk management in development
   - Coherence of Sustainable Development Goals 2030 and disaster risk reduction

8. China's effort in climate change and disaster reduction
   - Good practices
   - Gaps
   - Steps ahead
   - International involvement of China in disaster management

9. Disaster risk preparedness skills
   - Disaster risk reduction first aid training
   - Disaster risk mapping
   - Disaster family emergency kit making
   - Ethical consideration in disaster risk preparedness

Teaching/Learning Methodology	Teaching methods include lectures, discussion forums, digital media resource, case discussion, project presentation etcetera. Overseas and local guest speakers who are experts in the area of disaster management are invited, where possible. **Lectures** will be used to present knowledge on salient concepts such as: • Natural hazard, exposure, risk, climate change, human activities • Relationships between the above key concepts • Research perspectives, achievements and gaps of natural disasters in sciences and social sciences • How to respond to increasing natural disaster risk in rural and urban contexts from the perspective of resilient cities making • Natural disaster governance including United States' frameworks on DRR, different DRM patterns in developed, developing, and

undeveloped countries
- Active use of multi-media, including but not limited to relevant video production on climate change, movie clips, skype interviews etc.
- Invitation of guest speakers, such as the Director of Hong Kong Observatory, Chief Manager of the Infection, Emergency & Contingency of Hospital Authorities, and international experts from the United Nations Office for Disaster Risk Reduction and scholars from the PolyU-Sichuan University Institute for Disaster Management and Reconstruction.

Small Group Projects will be undertaken by students to examine disaster risk challenges in specific sectors or communities. Students are expected to develop solutions to the main challenges by applying ethical considerations, knowledge, methods and technologies they acquired, such as neighbourhood risk mapping for a specific vulnerable group. These projects would either be presented in class or submitted to the tutor for assessment.

Assessment Methods in Alignment with Intended Learning Outcomes					

Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)					
		a	b	c	d	e	f
1. Small Group Project	45 %	✓	✓	✓	✓	✓	
2. Individual Written Assignment [EW assessment 35% to be assessed by Subject Teacher & 10% to be assessed by ELC]	45%	✓	✓	✓	✓	✓	✓
3. Quiz [ER assessment]	10%	✓	✓	✓			✓
Total	100 %						

Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:

1. **Small Group Project**: This will be used to assess students' ability to apply knowledge and understanding of natural hazards, social vulnerabilities, critical infrastructures, as well as ways to reduce disaster risk and foster disaster resilience capacity in the relevant society or specific sectors and communities.

2. **Individual Written Assignment**: This will be used to assess students' ability to meet the five intended learning outcomes, particularly to integrate classroom learning and their living environment, propose feasible solutions by analyzing and incorporating existing studies, and integrate the knowledge acquired in this module to their personal, professional and career development where appropriate. This assignment will be submitted at an individual level.

To meet the "EW" (English Writing) requirement, students are required to submit a written assignment between 1,500-2,500 words in English. Before submission, there is a range for word length for the first draft of 500-700 words and a range for word length for the second draft of 1000-1500 words to be submitted to English Learning Centre. The assignment should give an indication of the student's understanding, integration and application of theories and concepts on disaster and risk management with reference to the five learning outcomes. Students must obtain a D or above on the Writing

Requirement assignment to pass the subject. This includes the 10% from ELC and 35% or more from the CAR teacher on content.

3.Quiz: To enable students to meet the "ER" (English Reading) requirement, students are required to read (approximately 100,000 words or 200 pages) of chapters prescribed from the text by "*Wisner, Gaillard & Kelman, I. (2012). The Routledge Handbook of Hazards and Disaster Risk Reduction*" followed by completing a quiz.

Student Study Effort Expected	Class contact:	
	▪ Lecture	39 Hrs.
	Other student study effort:	
	▪ Extensive reading	25 Hrs.
	▪ Preparation for seminar presentation	30 Hrs.
	▪ Written assignments	10 Hrs.
	Total student study effort	114 Hrs.

Reading List and References	**Required Reading to Fulfil "ER" Requirement** Wisner, B., Gaillard, J.C. & Kelman, I. (2012). The Routledge Handbook of Hazards and Disaster Risk Reduction. London: Taylor & Francis. [No. of pages 875] (Exact chapters and pages will be announced in class) **Supplementary References** Beavers, J.E. (2003). Advancing Mitigation Technologies and Disaster Response for Lifeline System. New York: American Society for Civil Engineers. Bhandari, R.K. (2013). Disaster Education and Management: A Joyride for Students, Teachers and Disaster Managers. New York: Springer. Chen, Y. & Shi, P.J. (2014) Disasters. Beijing: Beijing Normal University Press (in Chinese). Cui, K. & Sim, T. (2015). Local Government Emergency Management and Social Work Interventions in China. Social Sciences Academic Press (China) (in Chinese). [In Chinese: 崔珂、沈文伟. (2015). 基层政府自然灾害应急管理与社会工作介入.社会科学文献出版社] Comfort, L.K., Boin, A. & Demchak, C.C. (Eds.). (2000). Designing Resilience: Preparing for Extreme Events. Pittsburgh: University of Pittsburgh Press. Environment Bureau, Development Bureau, Transport & Housing Bureau, Commerce & Economic Development Bureau, Food & Health Bureau, & Security Bureau. (2015). Hong Kong Climate Change Report. Hong Kong: Hong Kong SAR Government. Leal Filho, W. (2012). Climate Change and Disaster Risk Management. New York: Springer.

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Quarantelli, E.L. (1998). What Is Disaster? London: Routledge.

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Saltman, K.J. (2007). Schooling and the Politics of Disaster. London: Taylor & Francis.

Sassa, K. & Cauti, P. (Eds.) (2008). Landslide: Disaster Risk Reduction. Springer-Verlag Berlin Heidelberg.

Tsuchiya, Y. & Shuto, N. (1995). Tsunami: Process in Prediction, Disaster Prevention and Warning. Kluwer Academic Publishers.

Sim, T. (2015). Psychosocial work. In J. Wright (Ed.). International Encyclopedia of Social and Behavioral Sciences (pp. 477-483). New York: Elsevier.

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Sim, T., Cui, K. & Yang, Y.X. (2015). Recent earthquakes in China: the case of Yingxiu Town in Sichuan Province. In Overseas Development Institute (Ed.). Pathways to earthquake resilience in China (pp.48-55). London: Overseas Development Institute.

Sim, T., Liu, Y., & Li, S. J. (Under review). Working together: Developing a disaster risk reduction first aid training in a post-earthquake Chinese context. Journal of Social Work.

Sim, T., & Qi, H. D. (2012). Wenchuan Yingxiu Primary School photo-story book. [汶川映秀小学生照片故事书] The Hong Kong Polytechnic University, Department of Applied Social Sciences, Sichuan Expanded School Mental Health Network. (In English & Chinese)

Stewart, I. (2006). Ten Things You Didn't Know About Series. London: BBC.

United Nations. (2015). Sendai Framework for Disaster Risk Reduction. Geneva: United Nations.

Zack, N. (2009). Ethics for disaster. Lanham, Md. : Rowman & Littlefield.