Course Syllabus

Class/Department：Graduate Institute of Urban Planning
Course Title: Resilience Theory in Urban Planning & Design 韌性理論與都市規劃設計
Grade(應修系級)：Grade 2
Type: ☐ Required ■ Selective ☐ Whole ■ Half
Credits:3
Course Number:M6054
Prerequisite Course: N/A

Course Description:

Originated in ecology, resilience theory has received tremendous attention in recent years. This course introduces resilience theory and explores how it is applied to urban planning and design. While resilience has been discussed with regards to various facets of urban development and the urban built environment, this course focuses on resilience to environmental—rather than socio-economic—changes. It explores how the concept of resilience provides a different approach and even paradigm for cities as social-ecological systems to interact with inherent or inevitable environmental changes that are often merely considered natural hazards. This course is carried out mainly through seminars, supplemented by short lectures. Students are to be guided to discuss in class key literature on resilience, and on resilience-based hazard mitigation in urban planning and design. This course requires the students to read extensively and provide their reflections frequently in oral presentations.

Course Objective:

After taking this course, students are expected to:
1. gain an in-depth understanding of resilience theory and articulate what it is.
2. identify the various ways of how resilience is framed and interpreted in urban planning and design in general, and more specifically in natural hazard mitigation.
3. articulate how resilience can be applied to the mitigation of a specific type of environmental change.
4. enhance English reading and speaking ability.

Course Outline: (including teaching schedule):

Week 1 February 22 Course introduction
Week 2 March 01 Resilience theory—Holling's resilience
Week 3 March 08 Resilience theory—Ecological resilience vs. engineering resilience
Week 4 March 15 Resilience theory—Social-ecological resilience
Week 5 March 22 Resilience theory—Thresholds & regime shifts

Week 6 March 29 Class rescheduled
Week 7 April 05 Tomb Sweeping Day
Week 8 April 12 Resilience theory—Adaptability & transformability
Week 9 April 19 Resilience in urban planning & design
Week 10 April 26 Resilience in urban planning & design
Week 11 May 03 Resilience-based natural hazard
Week 12 May 10 Flood resilience
Week 13 May 17 Urban planning & design for resilience to natural hazards
Week 14 May 24 Urban resilience
Week 15 May 31 Case study presentation
Week 16 June 7 Case study presentation
Week 17 June 14 Concluding discussion

學生核心能力權重：八項加總為100，不需每項均得填寫，惟至少需填一項

Item	Creative thinking and Problem-solving 創意思考與問題解決	Comprehensive integration 綜合統整	Communication and Coordination 溝通協調	Team cooperation 團隊合作
Weight	30%	30%		
Item	Integrity and Upright 誠信正直	Respect and Reflection 尊重自省	Diverse care 多元關懷	Cross-border cooperation 跨界合作
Weight				40%

Career Development:

Evaluation Methods:
Regular grades 50 % (Class discussion)
Final grades 50 %

Required texts:

Reference texts: