



Academic Year 2019-2020

Syllabus

Natural Disasters: Prevention and Reaction

CFU 6

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### Course Description

The relationship between human and nature is a fundamental one and it takes many different forms around the globe. The way we define this relationship also affect our decision-making process as individuals, businesses, governments and society. How we understand the risk around us, how we decide to manage that risk (what is acceptable and what is not), and how we manage a disaster. We In this course we take a systematic approach to disaster and risk management so that each course discusses one specific topic. We discuss how factors such as rapid urbanization, demographic shift, consumption patterns etc. affect the risk in our societies and the systemic shock brought by climate change. The capacity to understand our risk and to manage it is a core tool to manage change. And as individuals, as governments, as businesses, as societies we change. This course aims to increase your capacity in managing change. The course is structured around 3 modules, aiming to:

- Develop an understanding of disaster risk management concepts, terminology and dynamics;
- Provide a detailed overview of various DRM strategies including sample/case studies;
- Build up capacity to integrate DRM strategies into various field of interest.

### Teaching Method

The material will be covered using a mix of lectures, class discussions, simulations and hands-on exercises. Regular class attendance and active participation are expected, as they will help achieve the learning goals and contribute to an overall positive learning environment.

### Schedule of Topics

Session 1	Concepts: Risk, Disaster and Resilience
Session 2	Natural Hazards
Session 3	Structural Changes
Session 4	Climate Change
Session 5	Risk Assessment – methods
Session 6	Risk Assessment – make a scenario
Session 7	Risk Management – prevention
Session 8	Risk Management – protection
Session 9	Risk Management – preparedness
Session 10	Risk Assessment & Risk Management applications
Session 11	Disaster Management – response
Session 12	Disaster Management – response
Session 13	Disaster Management – recovery
Session 14	Disaster Management – reconstruction
Session 15	Case Study 1: critical infrastructure
Session 16	Case Study 2: socio-economic recovery
Session 17	Case Study 3: business continuity
Session 18	Case Study 4: water security
Session 19	Final discussion and key messages

**Textbook and Materials**

The course is presented as distinct stand-alone modules that complete each other. The instructor will circulate the presentation and material used in class after each class session. For those interested in acquiring more material, a good reference textbook is: Introduction to International Disaster Risk Management, Damon Coppola, (3<sup>rd</sup> edition), 2015, Butterworth-Heinemann. This is NOT a mandatory textbook.

**Assessment**

The grading will be based on the following: keep a class journal (35%), final exam (50%), and class participation (15%). Both the test and final will be written exams.

Non-attending students (more than 20% absence) will receive class material and directly take the final exam.

In case students reject their final exam score, they can retake the exam at a later date. In this case all previous scores from the class journal and the tests are voided. The score the student gets from the retake of the final becomes their course grade.

**Office hours**

Erdem Ergin, upon appointment ([erdemergin6@gmail.com](mailto:erdemergin6@gmail.com)).