LUNDS UNIVERSITET
Lunds Tekniska Högskola

Course syllabus

Samhällssäkerhet och resiliens
Societal Resilience

VRSN01, 7,5 credits, A (Second Cycle)

Valid for: 2023/24
Faculty: Faculty of Engineering, LTH
Decided by: PLED BI/RH
Date of Decision: 2023-04-12

General Information

Main field: Disaster Risk Management and Climate Change Adaptation.
Compulsory for: MKAT1
Elective for: BI4, RH4, W4, R4
Language of instruction: The course will be given in English

Aim

- to provide the students with understanding of society's challenges and necessary functions for resilience in relation to various events threatening safety and sustainability, as well as ability and approaches to contribute to societal resilience through disaster risk management and climate change adaptation for sustainable development in a changing world.
- to form a foundation for students interested in research in disaster risk management and climate change adaptation for a safe and sustainable society.

Learning outcomes

Knowledge and understanding
For a passing grade the student must

- demonstrate understanding of the main challenges to the safety and sustainability of society and the importance and utility of concepts of resilience in this context.

Competences and skills
For a passing grade the student must

- demonstrate ability to analyse societal resilience as an emergent property based on society's ability to anticipate, recognise, adapt and learn.

- demonstrate ability to improve societal resilience with consideration to human conditions and needs and to societal goals for economically, socially and ecologically sustainable development.
- demonstrate ability to orally and in writing formulate, present and discuss own conclusions, as well as the underlying assumptions and arguments, concerning complex issues of societal resilience.

Judgement and approach
For a passing grade the student must

- demonstrate ability to reflect on scientific, societal and ethical issues concerning risk, resilience, safety and sustainability in our uncertain, complex, ambiguous and dynamic world.
- demonstrate ability to identify own needs of further knowledge and skills for a safer and more sustainable world.

Contents

The course is designed with particular focus on critical thinking in relation to societal safety and sustainability. It is structured in modules with a lecture and a seminar or roleplay designed to illuminate central concepts, questions, challenges and functions for societal resilience. The seminars and roleplay follow case studies from countries with different conditions and are based on literature, movies and case study material, as well as specific questions for reflection and dialog.

Examination details

Grading scale: TH - (U,3,4,5) - (Fail, Three, Four, Five)
Assessment: Written individual course paper and approved portfolio of assignments to mandatory seminars. The portfolio examination also includes peer assessment.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Parts
Code: 0114. **Name:** Societal Resilience.
Credits: 6. **Grading scale:** TH. **Assessment:** Course Paper
Code: 0214. **Name:** Individual Portfolio.
Credits: 1,5. **Grading scale:** UG. **Assessment:** Portfolio of assignments

Admission

Admission requirements:

- Admitted to the Master's Programme in Disaster Risk Management and Climate Change Adaptation or to the Programme Risk Management and Safety Engineering or have a minimum of 150 hp from a five-year engineering programme or from the Fire Safety Engineering Programme at LTH.

The number of participants is limited to: 50
Selection: Completed university credits within the program. Within programs where the course is given as a compulsory course students are guaranteed admission. Thereafter

priority is given to students enrolled the Programme Risk Management and Safety Engineering and Fire Safety Engineering, second priority is given to students enrolled in programs that include the course in the curriculum.
The course overlaps following course/s: VBRN30

Reading list

- ACAPS: Coordinated assessments in emergencies, What we know now - key lessons from field experience. Geneva: ACAPS, 2012.
- Becker, P.: Sustainability Science: Analyzing and Managing Risk and Resilience for Sustainable Development. Elsevier, 2014.
- Coppola, D.P.: Introduction to international disaster management, (2 ed). Oxford: Butterworth-Heinemann (Elsevier)., 2011.
- Cutter, S.L, Burton, C.G & Emrich, C.T: Disaster Resilience Indicators for Benchmarking Baseline Conditions. Journal of Homeland Security and Emergency Management, 2010.
- Heylighen, F. Cilliers, P & Gershenson, C: Complexity and Philosophy. Oxford; Radcliffe Publishing, 2007.
- Meyer, R. J.: Why we under-prepare for hazards. Philadelphia: University of Pennsylvania Press., 2006. In R. J. Daniels, D. F. Kettl, & H. Kunreuther (Eds.), On risk and disaster: Lessons from hurricane katrina. (pp. 153-74).
- Pendall, R., Foster, K. A., & Cowell, M.: Resilience and regions: Building understanding of the metaphor'. 2010. Cambridge Journal of Regions, Economy and Society, 3(1), 71-84.
- Illeris, K: Contemporary theories of learning, Learning theorists... in their own words. London and New York: Routledge, 2009.
- Johnson, D & Levin, S: The tragedy of cognition:, Psychological biases and environmental inaction. Current Science, 97(11), 1593-1603, 2009.
- Wamsler, C.: Cities, Risk and Disaster. London: Routledge, 2013. Routledge Series on Critical Introduction to Urbanism and the City.
- Kramer, R. M: A Failure to Communicate, 9/11 and the Tragedy of the Informational Commons. International Public Management Journal, 8(3), 397-416, 2005.
- Alexander, D. E. : Resilience and disaster risk reduction: An etymological journey. Natural Hazards and Earth System Sciences Discussions. 1, 1257-1284, 2013.
- Bergström, J., & Dekker S: Bridging the Macro and the Micro by Considering the Meso: , Reflections on the Fractal Nature of Resilience. Ecology and Society 19(4): 22, 2014.
- IFRC: Literature review on aligning climate change adaptation (CCA) and disaster risk reduction (DRR). Geneva: IFRC, 2019.
- UNISDR: Overview chart Sendai framework for disaster risk reduction 2015-2030. UNISDR, 2015.
- United Nations: Transforming our world: The 2030 agenda for sustainable development [A/RES/70/1]. New York: United Nations, 2015.

Contact and other information

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