

International Doctorate in Civil and Environmental Engineering

DOCTORAL COURSE

Risk management for natural hazardsTeachers: Prof. **Marco Uzielli**, Prof. **Johann Facciorusso**

DICeA, Università degli Studi di Firenze and Georisk Engineering S.r.l.

marco.uzielli@unifi.it, johann.facciorusso@unifi.it

Calendar	
Mon, 14/03/2022 10:30-12:30	L00 - Course introduction L01 – Risk: figures, concepts, and frameworks
Thu, 17/03/2022 10:30-12:30	L02: Risk estimation
Mon, 21/03/2022 10:30-12:30	L03: Example applications Group session 1: finalization of individual project topics
Thu, 31/03/2022 10:30-12:30	Group session 2: development of individual projects
Thu, 14/04/2022 09:00-11:00	Group session 3: development of individual projects
Thu, 28/04/2022 09:00-11:00	Group session 4: development of individual projects
Thu, 12/05/2022 09:30-11:30	Group session 5: oral presentation of individual projects
Total	14 hours – 7 credits

Program
<p>Risk is an increasingly relevant concept in the management of human communities and of the environment. The surging impact of natural hazards, including the effects of climate change, requires a rational, quantitative approach to risk-based decision-making.</p> <p>This course will provide a technical overview of the concept of risk for human-valued assets to natural hazards. Conceptual frameworks and operational methods will be illustrated as well as case-study applications.</p> <p>Course participants will be assessed through a short written report and an oral presentation focusing on a specific instance of quantitative estimation of the temporal evolution of hazard, vulnerability and/or risk due to climate change and/or other natural factors.</p>