

## DOCTORAL PROGRAMME IN TERRITORY, RISK AND PUBLIC POLICIES

### Methods and Techniques of Risk Assessment and Management (8 ECTS)

#### Lecturers

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#### Objectives

The goal is to familiarize students with the evolution of risk, catastrophe and vulnerability concepts, considering the social and technological changes within contemporary societies.

The aim is to characterise the overall natural and technological risks and provide detailed information on major international, national and local risks (e.g. drought, desertification, coastal erosion, severe industrial accidents, etc.).

Risk assessment and management methodologies will also be analysed, using quantitative and qualitative assessment mechanisms, as well as the risk perception, communication and negotiation.

Risk assessment and management methodologies for densely urbanized areas and coastal regions will also be approached.

#### Programmatic Contents

- Concepts: Risk, Catastrophe, Vulnerability;
- Risk Management: Qualitative and Quantitative Assessment;
- Risk Perception and Communication;
- Natural Hazards: risk assessment and management methods (floods, coastal erosion, fire, drought and desertification, diseases and epidemics;

- Technological Risks: risk assessment and management methods (major industrial accidents, accidents associated to the transport of hazardous substances, dam failure);
- Case studies: Risks in densely urbanized areas and coastal regions.

### Main bibliography

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Bickerstaff, K. (2004) Risk perception research: sociocultural perspectives on the public experience of air pollution, Environment International, 30, 827-840.

Blaikie, P.; Cannon, T.; Davis, I.; Wisner, B. (2003); At Risk: Natural Hazards, People's Vulnerability and Disasters, London: Routledge.

Fleming, G. (2002); Flood Risk Management, London: Thomas Telford Limited. Klinke, A.; Renn, O. (2002) A new approach to risk evaluation and management: risk-based, precaution-based, and discourse-based strategies, Risk Analysis, 22(6), 1071 – 1094).

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