

Risk and Safety, M.Sc.

An interdisciplinary Master's from TUM





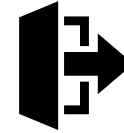
Self-Driven Cars

How can we show that self-driven cars are safe enough?



Aircraft Reliability

How reliable should an aircraft component be?



Tunnel Design

How many safety exits should a tunnel have?



Theoretical toolkit

Learn a highly versatile and broadly applicable toolkit

M.Sc. Risk and Safety

→ A novel Master's program that adopts a holistic perspective on risk and safety

→ Highly interdisciplinary degree with a wide range of specialization options and working opportunities

→ Teaches you a universal toolkit for endless application cases



Specialization

Explore countless possibilities and shape your own path



Communication

How can we communicate that there is no perfect safety?



Climate Change

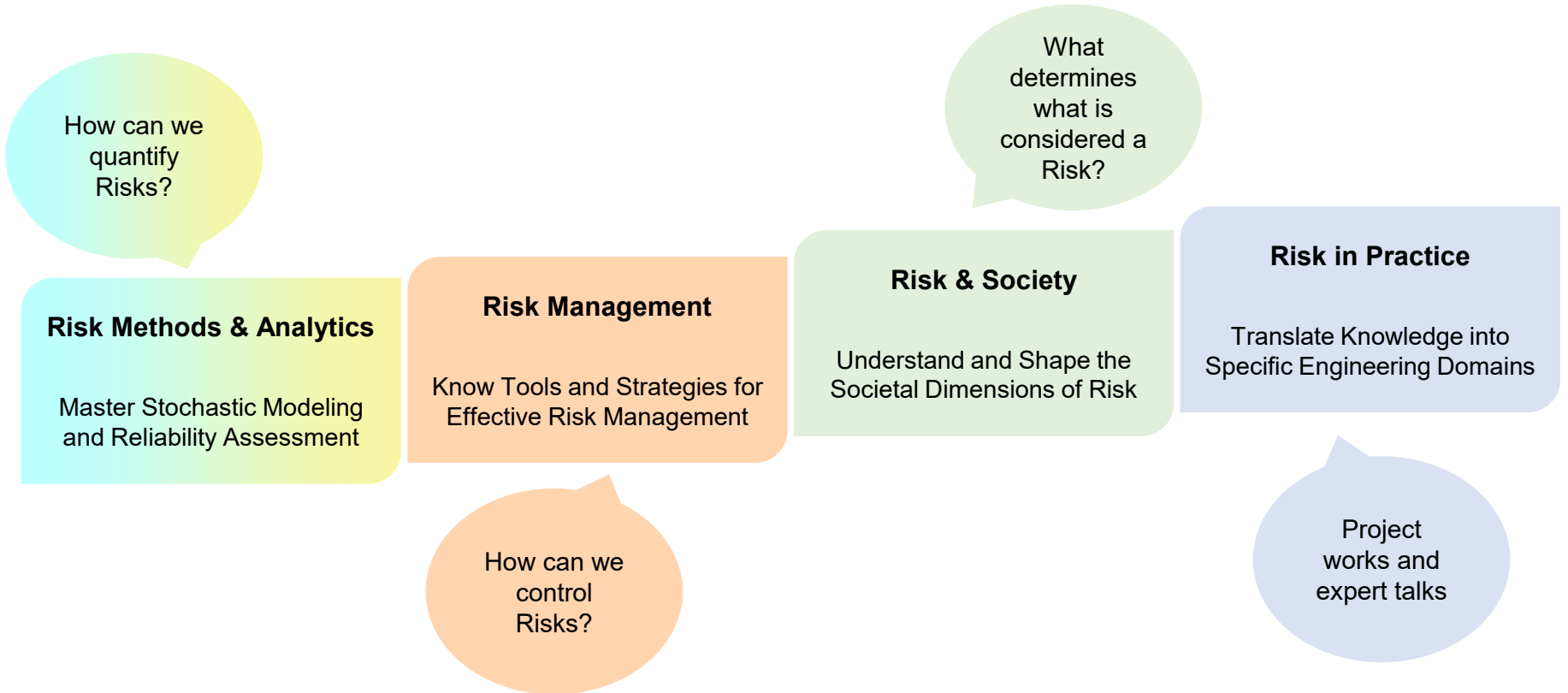
How should we adapt to the risks of climate change?



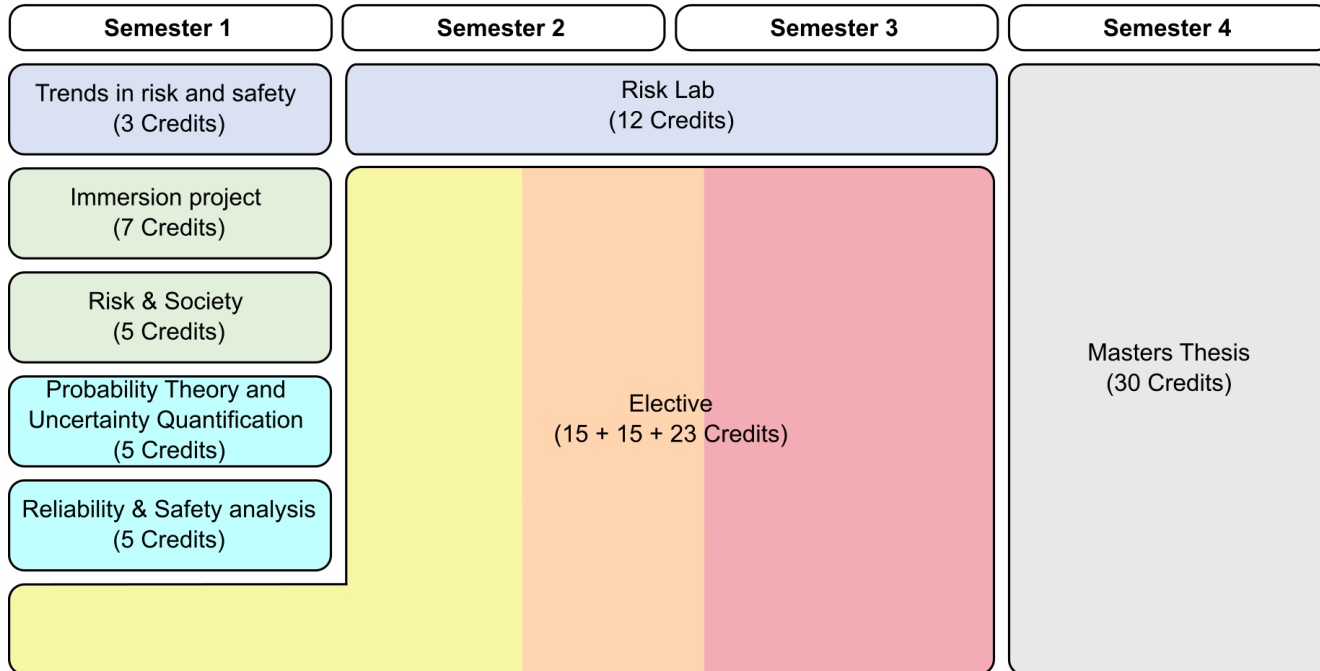
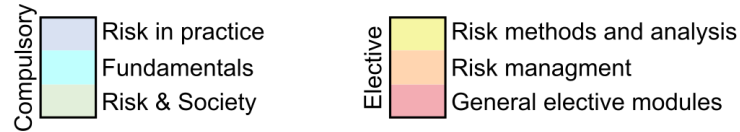
Natural Hazards

How can we handle future flood events?

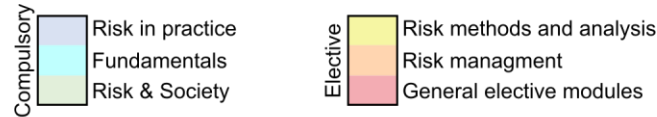
Core Pillars of the Program



Structure of the Program

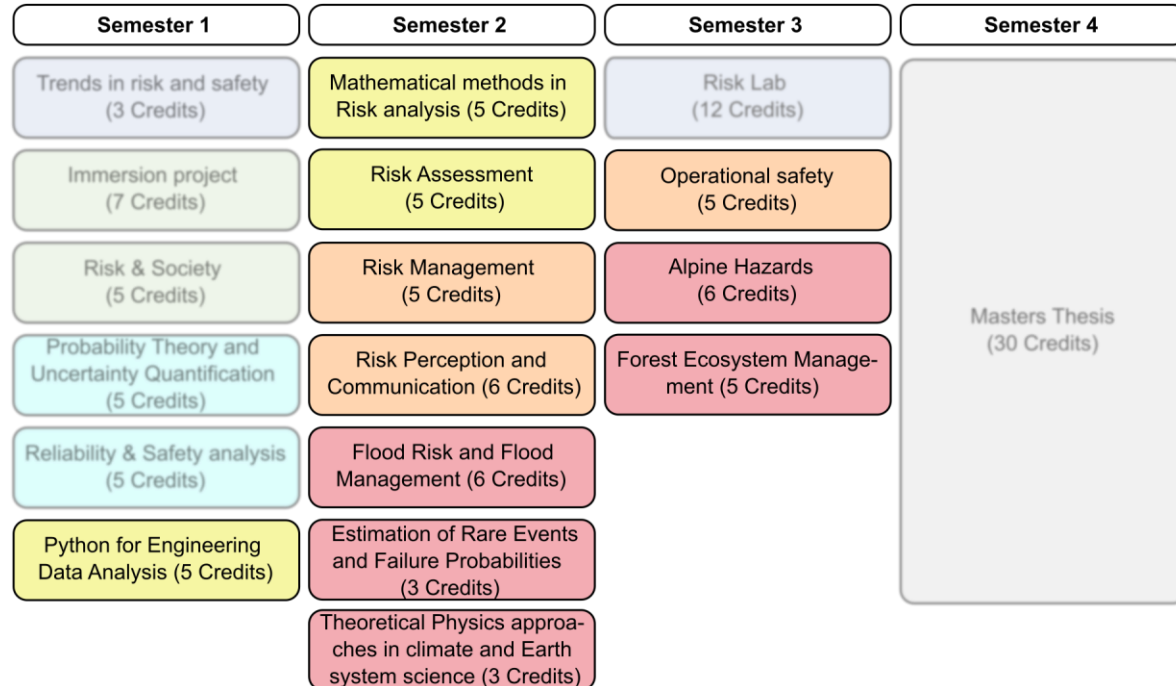
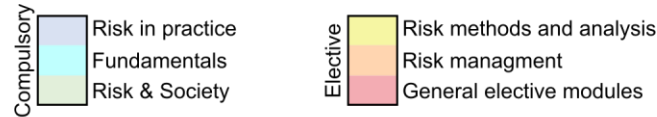


Example 1: Become an Expert in Aircraft Safety

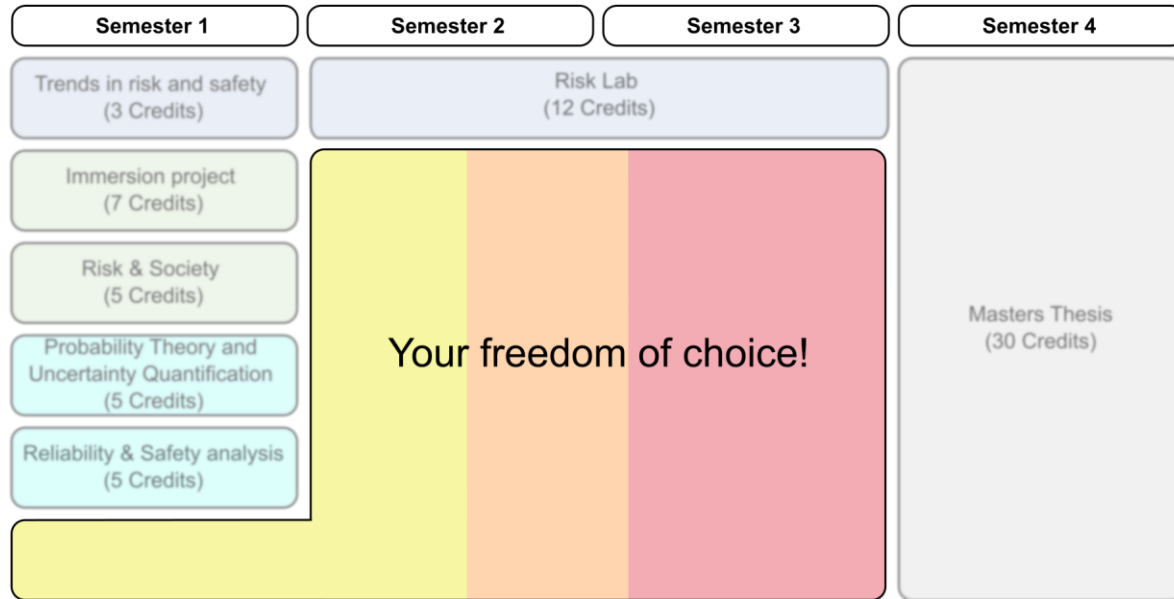
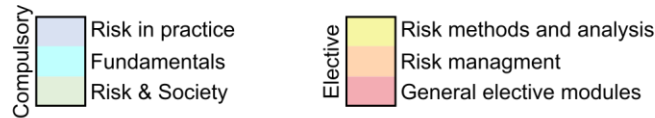


Semester 1	Semester 2	Semester 3	Semester 4
Trends in risk and safety (3 Credits)	Risk Lab (12 Credits)		Masters Thesis (30 Credits)
Immersion project (7 Credits)	Risk Assessment (5 Credits)	System and Functional Safety (5 Credits)	
Risk & Society (5 Credits)	Risk Management (5 Credits)	Operational safety (5 Credits)	
Probability Theory and Uncertainty Quantification (5 Credits)	Risk Perception and Communication (6 Credits)	Prognostics and Health Management (3 Credits)	
Reliability & Safety analysis (5 Credits)	Safety and Certification of Aircraft (5 Credits)	Structural Reliability (3 Credits)	
Python for Engineering Data Analysis (5 Credits)	Helicopter Safety and Certification (3 Credits)	Knowledge and Risk (5 Credits)	
	Safety and Certification of Avionics and Flight Control Systems (5 Credits)		

Example 2: Become an Expert in Natural Hazards



What kind of Safety Expert do **you** want to be?



Your Career Opportunities



Manufacturers



**Transportation
and Infrastructure**



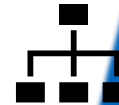
**Certification and
Safety Assurance**



**Government
Agencies**



**Insurance and
Reinsurance**



**Engineering
Consultancies**