



MSc in "Civil Engineering for Mitigation of Risk from Natural Hazards"

Courses offered (general structure) 2024-2025

Reduction Of Seismic Risk		First semester					Second semester				
		Month 1 (Sept- Oct)	Month 2 (Oct- Nov)	Month 3 (Nov-Dec)	Month 4 (Jan)	Month 5 (Feb)	Month 1	Month 2	Month 3	Month 4	Month 5
1 st year	Series	Dynamics of Structures (G.O'Reilly, G.Scalet)	Reinforced Concrete Structures (P.Calvi U.of Washington*, G. Guerrini)	Computation- al Mechanics (S.Morganti)	Probability and Statistics for Eng Appl (P.Bazzurro, P.Venini)	Exams (Probability and Statistics + possible others)	Seismic Hazard and Applied Seismology (V.Poggi – OGS Trieste*)	Foundation Engineering and Earth Retaining Structures (R.Cosentini, Polit. of Turin*)	Fundamentals of Seismic Design (R.Monteiro)	Nonlinear Response Analysis (D.Lignos, EPFL Lausanne*)	
	Parallel	Applied Mathematics (M.			,	Geotechnical Earthquake Engineering (C.GLai)			.Lai)		
2 nd year	Series	Risk Assessme- nt and Loss Estimation (P.Bazzurro + D.Vamvatsikos NTU Athens * + M.Kohrangi)	1 choice ■	Bridge structures (G.M. Calvi)	Masonry structures (G.Magenes, F.Graziotti)	1 choice ∎∎	Thesis				
	Parallel			-							

Choices	Steel Structures (B.Nascimbene)	Seismic Isolation and Dissipation (A.Pavese- M.Furinghetti)	Risk Emergency Management and Legislation (A.Monti at al.) ■ 3 CFU	
		Sustainability Science in the Built Environment ■ 3CFU	Systemic risk and indirect impacts (M. Arosio) ■■ 2(April-July) 3 CFU	

Mathematics and statistics	
Solid and structural mechanics	
Structural/geotechnical design, assessment and retrofit	
Hazard and risk analysis	
Complementary	