

Curricula and study plan (general structure) 2021-2022

Reduction Of Seismic Risk		First semester					Second semester				
		Month 1	Month 2	Month 3	Month 4	Month 5	Month 1	Month 2	Month 3	Month 4	Month 5
1 st year	Series	Dynamics of Structures (H.Sucuoglu-METU Ankara)	Reinforced Concrete Structures (B.Mihaylov – U. de Lièges+ G.Guerrini)	Applied Mathematics (L.Tamellini IMATI-CNR)	Computational Mechanics (A.Reali + G.Scalet)	Probability and Statistics for Eng Appl (P.Bazzurro + P.Venini)	Seismic Hazard and Applied Seismology (V.Poggi – OGS Trieste)	Foundation engineering and Earth Retaining Structures (G.Cascante U.of Waterloo)	Nonlinear Response Analysis (E.Spacone, U. di Chieti)	Fundamentals of Seismic Design (R.Monteiro+ O'Reilly)	
	Parallel	-					Geotechnical Earthquake Engineering (C.G..Lai)				
2 nd year	Series	Seismic Risk (Bazzurro + Vamvatsikos NTU Athens)	1 choice	Bridge structures (G.M. Calvi)	Masonry structures (G.Magenes)	1 choice	Thesis				
	Parallel	-									

Choices		Steel Structures (R.Nascimbene)				-Seismic Isolation (A.Filiatrault)					Geomatics and GIS –b (A.Taramelli)	
		Geomatics and GIS a – (A.Taramelli)				-Risk Emergency Management and Legislation (Monti + Moratti + Velliscig)						

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

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Hydrogeological Risk Assessment & Mitigation		First semester					Second semester				
		Month 1	Month 2	Month 3	Month 4	Month 5	Month 1	Month 2	Month 3	Month 4	Month 5
1st year	<i>Series</i>	Continuum Mechanics (S.Manenti)	Continuum Mechanics Geomatics and GIS –a (A.Taramelli)	Applied Mathematics (L.Tamellini)	Engineering Geology (C.Meisina)	Probability and Statistics for Eng Appl (Bazzurro + Venini)	Hydro morphology (C.Armadori, M.Righini)	Computational Fluid Dynamics (S.Sibilla + A.Fenocchi)	Snow Avalanches and Related Mountain Natural Hazards (Barbolini-Pasian)	Geomatics and GIS –b (A.Taramelli)	
	<i>Parallel</i>	Fluvial Hydraulics (P.Ghilardi + A.Fenocchi)					Landslides Hazard and Risk (Meisina + Bordoni)				
2nd year	<i>Series</i>	Hydrological Risks (M.Martina)	1 Choice		Structural measures for flood risk mitigation (P.Ghilardi)	1 Choice	Thesis				
	<i>Parallel</i>	Flood Propagation (G.Petaccia)									
<i>Choices</i>			Hydraulic infrastructures (E.Creaco)			Landslide modeling and mitigation strategies (D.Gioffré)		Foundation Engineering and Earth Retaining Structures			
			Reinforced Concrete Structures			Risk Emergency Management and Legislation (Monti + Moratti + Velliscig)					
							Earth Surface and Processes (P.Borrelli)				

Mathematics and statistics	
Fluid and continuum mechanics	
Hazard and exposure; definition and modeling	
Risk analysis	
Measures for risk mitigation (including design of engineering works)	