

Studies Plan

Mineur : Génie civil 2024-25

Minor : Civil Engineering

	Courses			Exam Session	Exam	Credit
Language	Code	Section	Teacher			
	Advanced composites in engineering structures					
E	CIVIL-443	GC	Vassilopoulos	Win	Oral	3
	Bridge design					
E	CIVIL-478	GC	Vacat	Sum	During the semester	3
	Building physics					
E	CIVIL-479	GC		Sum	Written	4
	Composites design and innovation					
E	CIVIL-464	GC	Vassilopoulos	Sum	Oral	3
	Computational geomechanics					
E	CIVIL-423	GC	Lecampion	Win	During the semester	5
	Computational hydrodynamics					
E	CIVIL-471	GC	Karimpour Ghannadi	Win	Oral	5
	Computational systems thinking for sustainable eng.					
E	CIVIL-534	GC	Sonta	Sum	During the semester	4
	Continuum mechanics and applications					
E	CIVIL-425	GC	Garcia Suarez Lecampion Molinari	Sum	Oral	6
	Dam engineering					
E	CIVIL-411	GC	Manso Mouvet	Win	Oral	3
	Decision-aid methodologies in transportation					
E	CIVIL-557	GC	Paschalidis Torres	Sum	During the semester	4
	Deep learning for autonomous vehicles					
E	CIVIL-459	GC	Alahi	Sum	During the semester	6
	Design and construction of roadways					
F	CIVIL-463	GC	Tille	Win	Written	3
	Design of precast concrete structures					
E	CIVIL-414	GC	Fernandez-Ordaz	Sum	During the semester	3
	Dynamics of structures					
E	CIVIL-468	GC	Lignos Vanin	Win	Written	4
	Energy geostructures					
E	CIVIL-444	GC	Laloui	Sum	Written	4
	Engineering of existing structures					
E	CIVIL-511	GC	Denarié Nussbaumer	Win	Oral	4
	Flood and dam break waves					
F	CIVIL-515	GC	Ancey	Sum	Oral	3
	Flow monitoring technology in water engineering					
E	CIVIL-427	GC	De Cesare Perona	Sum	During the semester	3
	Fluvial hydraulics and river training works					
F	CIVIL-410	GC	André Arborino De Cesare	Win	Oral	3
	Fundamentals of traffic operations and control					
E	CIVIL-457	GC	Geroliminis	Win	During the semester	4

E	Geomechanics CIVIL-402	GC	Ferrari Laloui	Win	Written	5
E	Geothermal resource development CIVIL-470	GC	Kushnir	Win	Oral	3
E	Hydropower schemes and pumped-storage CIVIL-469	GC	De Cesare Manso	Sum	Written	4
E	Indoor air quality and ventilation CIVIL-460	GC	Licina	Sum	During the semester	4
E	Innovation for construction and the environment CIVIL-424	GC	Terzis	Win	During the semester	3
E	Machine learning for predictive maintenance applications CIVIL-426	GC	Fink	Win	During the semester	6
E	Materials and structures CIVIL-532	GC	Denarié	Win	Oral	3
F	Mobility engineering CIVIL-451	GC	Tufo	Win	During the semester	3
E	Nonlinear analysis of structures CIVIL-449	GC	Lignos Saloustros	Win	Written	6
E	Reinforced concrete structures - advanced topics CIVIL-512	GC		Sum	Written	4
E	Research skills for engineers CIVIL-465	GC		Win	During the semester	2
F	Risk analysis and management CIVIL-438	GC	Defert	Win	Oral	2
E	Rock mass characterization for engineering design CIVIL-496	GC	Kushnir Violay	Sum	During the semester	5
E	Seismic engineering CIVIL-522	GC	Lignos Saloustros Vanin	Sum	Written	6
E	Slope stability CIVIL-530	GC	Ferrari	Sum	Written	3
E	Steel structures CIVIL-526	GC	Nussbaumer	Win	Written	3
E	Structural stability CIVIL-369	GC	Heredia Rosa Lignos Sousa	Sum	Written	4
E	Thermodynamics of comfort in buildings CIVIL-450	GC	Khovalyg	Sum	During the semester	3
E	Timber construction CIVIL-433	GC	Natterer	Sum	Oral	3
E	Transportation economics CIVIL-455	GC	Geroliminis Yang de Palma	Sum	During the semester	3
E	Transportation network modeling & analysis CIVIL-477	GC	Zhang	Sum	During the semester	3
E	Underground construction CIVIL-404	GC	Sandrone	Sum	During the semester	3
E	Urban hydraulic systems CIVIL-413	GC	Pfister	Sum	Oral	3

**Water resources engineering and
management**

<i>E</i>	<i>CIVIL-466</i>	<i>GC</i>	<i>Bieri</i> <i>Leite</i> <i>Ribeiro</i> <i>Perona</i>	<i>Sum</i>	<i>Written</i>	<i>5</i>
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