

Studies Plan

Génie civil 2023-24

Block "Cross-disciplinary team projects"

Courses			Exam Session	Exam	Credit
Language	Code	Section	Teacher		
F	Semaine ENAC			Sum	4
F	Unités d'enseignement ENAC			Sum	4

Block 1

Courses			Bachelor 3	Bachelor 4	Bachelor 5	Bachelor 6	Exam Session	Exam	Credit			
Language	Code	Section	Teacher	I	e	p	I	e	p	I	e	p
F	Analysis III MATH-203(b)		MA	Strütt	2h	2h				Win	Written	4
E	Fundamentals of indoor climate CIVIL-212		GC	Licina	1h	1h				Win	During the semester	2
E	Introduction to optimization and operations research MATH-265		GC	Bierlaire	2h	2h				Win	Written	4
F	Probability and statistics MATH-234(a)		MA	Zemel	2h	1h				Win	Written	3

Block 2

Courses				Bachelor 3	Bachelor 4	Bachelor 5	Bachelor 6	Exam Session	Exam	Credit		
Language	Code	Section	Teacher	I	e	p	I	e	p	I	e	p
F	Continuum mechanics (for GC)											
F	CIVIL-225	GC	Molinari	2h	2h					Win	Written	3
F	Geology											
F	CIVIL-211	GC	Müntener Pilet Violay	3h	1h					Win	During the semester	4
E	Introduction to machine learning for engineers											
E	CIVIL-226	GC	Alahi Fink				2h	3h		Sum	During the semester	5
E	Structural mechanics (for GC)											
E	CIVIL-238	GC	Vassilopoulos	2h	2h					Win	Written	4

Block 3

Courses				Bachelor 3	Bachelor 4	Bachelor 5	Bachelor 6	Exam Session	Exam	Credit		
Language	Code	Section	Teacher	I	e	p	I	e	p	I	e	p
F	Design of steel structures											
	CIVIL-235	GC	Nussbaumer	3h 2h						Sum	Written	5
F	Fluids mechanics (For GC)											
	CIVIL-210	GC	Ancey	3h 2h						Sum	Written	5
F	Fundamentals of geomatics											
	ENV-140	SIE	Gilliéron Tuia	1h 1h						Sum	During the semester	2
E	Introduction to transportation systems											
	CIVIL-355	GC	Bierlaire	2h 1h						Sum	During the semester	3
F	Soil mechanics and Groundwater seepage											
	CIVIL-203	GC	Vulliet	3h 2h 1h						Sum	Written	5
F	Statics II											
	CIVIL-224	GC	Vurpillot	2h 2h						Sum	Written	4

Block 4

Courses			Bachelor 3	Bachelor 4	Bachelor 5	Bachelor 6	Exam Session	Exam	Credit
Language	Code	Section	Teacher	l e p	l e p	l e p	l e p		
F	<b>Dimensioning of Timber structures</b> CIVIL-331 GC		Natterer			2h 1h		Win	Written 3
E	<b>Numerical analysis</b> MATH-251(a) MA		Antolin Sanchez Sande			2h 1h		Win	Written 3
E	<b>Reinforced concrete structures</b> CIVIL-323 GC		Ruggiero			3h 2h		Win	Written 5
F	<b>Rock mechanics</b> CIVIL-308 GC		Sandrone Violay			3h 2h		Win	Written 5
E	<b>Traffic engineering</b> CIVIL-349 GC		Geroliminis			2h 2h		Win	During the 4 semester
E	<b>Urban Thermodynamics</b> CIVIL-309 GC					2h 1h		Win	During the 3 semester

#### Block 5

Courses			Bachelor 3	Bachelor 4	Bachelor 5	Bachelor 6	Exam Session	Exam	Credit
Language	Code	Section	Teacher	l e p	l e p	l e p	l e p		
F	<b>Geotechnical engineering</b> CIVIL-306 GC		Lecampion				3h 2h	Sum	Written 5
F	<b>Hydraulic structures and schemes</b> CIVIL-312 GC		De Cesare Manso				3h 2h	Sum	Written 5
F	<b>Numerical modelling of solids and structures</b> CIVIL-321 GC		Anciaux Molinari				2h 2h	Sum	Written 4
F	<b>Project in civil engineering</b> CIVIL-390 GC		Profs divers				6h	Sum	During the 6 semester
E	<b>Urban public transport systems</b> CIVIL-324 GC		Zhang				2h 1h	Sum	During the 3 semester

#### Block 6

Courses			Bachelor 3	Bachelor 4	Bachelor 5	Bachelor 6	Exam Session	Exam	Credit
Language	Code	Section	Teacher	l e p	l e p	l e p	l e p		
F	<b>Analysis IV</b> MATH-207(d) MA		Basterrechea				2h 2h	Sum	Written 4
F	<b>Bridge design and equipment</b> CIVIL-335 GC		Burdet Nussbaumer				2h 1h	Sum	Oral 3
E	<b>Data Science for infrastructure condition monitoring</b> CIVIL-332 GC		Fink				2h 1h	Sum	During the 3 semester
F	<b>Estimation methods</b> ENG-267 SIE		Skaloud			2h 2h		Win	Written 4
F	<b>Geographic information system (GIS)</b> ENV-342 SIE		Joost				2h 2h 1h	Sum	Written 5
E	<b>Heat and mass transfer</b> ME-341 GM		Tagliabue				3h 1h	Sum	Written 4
E	<b>Hydrology for engineers</b> ENV-221 SIE		Bonetti Rinaldo			3h 2h		Win	Written 5
F	<b>Numerical representation / BIM</b> CIVIL-307 GC		Domer				2h 1h	Sum	During the 3 semester
E	<b>Signals, instruments and systems</b> ENG-366 SIE		Martinoli			2h 3h		Win	Written 5

#### Transverse block HSS

<b>Courses</b>			<b>Exam Session</b>	<b>Exam</b>	<b>Credit</b>
<i>Language</i>	<i>Code</i>	<i>Section</i>	<i>Teacher</i>		
<i>F</i>	<b>SHS : Bachelor cycle BA6</b>	<i>SHS</i>			2
<i>F</i>	<b>HSS : Bachelor cycle BA5</b>	<i>SHS</i>			2
<i>F</i>	<b>HSS : Bachelor cycle BA4</b>	<i>SHS</i>			2
<i>F</i>	<b>HSS : Bachelor cycle BA3</b>	<i>SHS</i>			2