

Fixed programme in French

Structural conception : calculation of beams stresses, dimensioning of concrete and steel structural elements (drawing and CAD), apprehension of soil-structure connections, General construction : materials, building conception (architecture, rehabilitation, safety and accessibility), surveying and road modelling, construction processes of unerground works

Code	subjects	lectures	tutorials	Practical work	Exam	Project	Workload / semester	ECTS	LANGUAGE
TC3MST2	Structural mechanics	✓	✓	✓	✓		54h	5	FR
TC3BA2	Reinforced concrete	✓	✓		✓		44h	4	FR
TC3BP2	Prestressed concrete	✓	✓		✓		23h	2	FR
TC3CM2	Metal structures	✓	✓		✓		31h	3	FR
TC3LB2	ROBOT software	✓		✓	✓		16h	2	FR
TC3MSO2	Soil mechanics	✓	✓	✓	✓		32h	3	FR
TC3M2	Materials	✓	✓	✓	✓		38h	4	FR
TC3CG2	General construction					✓	27h	3	FR
TC3TO2	Topography			✓		✓	12h	2	FR
TC3PGC2	Construction general process	✓	✓		✓		18h	2	FR
TC3FLE2	French as a foreign language	✓	✓		✓		30h	3	FR

Fixed programme in French

2 projects including : metal and concrete structures - foundations and calculations - Human and financial management

1 research and innovation project including bibliographic research and issue address .

Code	subjects	lectures	e-learning	tutorials	Practical work	Exam	Project	Workload / semester	ECTS	Language
TC4CM1	Metal structures				✓		✓	29h	4	FR
TC4BA1	Reinforced concrete	✓		✓		✓		41h	5	FR
TC4PS1	Sturcture project						✓	20h	2	FR
TC4OGE1	Company organization and management	✓		✓		✓		25,5h	4	FR
TC4OGT1	Works oragnization and management	✓		✓		✓		42h	5	FR
TC4SHM1	Human sciences and management	✓		✓		✓		44h	5	FR
TC4ME1	Ethic management		✓			✓		4h	1	FR
TC4PRI1	Research and innovation project						✓	34h	4	FR
TC4FLE1	French as a Foreign Language	✓		✓		✓		30h	3	FR

FIXED PROGRAMME based on projects in french and english
Innovations and green building
Agile building and 4.0 building

Code	subjects	lectures	tutorials	Practical work	Exam	Project	Workload / semester	ECTS	Language
TC4DD2	Sustainable development	✓				✓	69h	4	FR
TC4E2	Environment	✓	✓	✓	✓		26h	2	EN
TC4H2	Hydraulics	✓	✓			✓	25h	2	EN
TC4BET2	Building and energy transition	✓				✓	29h	2	FR
TC4SC2	Sustainable city	✓				✓	23h	2	FR/EN
TC4ESB2	Environmental stakes in building	✓				✓	21h	2	FR/EN
TC4RIP2	Research and innovation project					✓	37h	3	FR/EN
TC4WP2	Works planning	✓				✓	36h	3	FR/EN
TC4SDS2	Soil dynamics and structures	✓		✓		✓	29h	2	FR/EN
TC4BBP2	Bridge buiding	✓			✓		15h	1	FR
TC4PM2	Project management	✓				✓	36h	3	FR/EN
TC4FGF2	Financial management of worksites	✓	✓			✓	27h	2	FR
TC4RM2	Risk management	✓			✓		9h	1	FR/EN
TC4BIM2	BIM - Digital modeling			✓		✓	48h	3	FR
TC4BIMDMT2	BIM - Convergence SIG-BIM Data managment tools	✓				✓	24h	2	FR/EN
TC4AM2	Asset management	✓				✓	28h	2	FR/EN
TC4FLE2	French as a Foreign Langue	✓	✓		✓		30h	3	FR

End-of-study project / Final project

Sustainable building : advanced technical education and project in groups of 4 or 5 students . On a given plot, the group has to design a building with public access and accomodations: architecture, fire safety, accessibility, accoustic, thermic, sustainable development, pricing, methods and planning . A full project which leads to the final tender

Code	subjects	lectures	tutorials	Practical work	Exam	Project	Workload / semester	ECTS	LANGUAGE
UE1	Additional technical modules								
TC5BSIH1	Fire safety and handicap	✓				✓	18h	2	FR
TC5BA1	Accoustics	✓	✓		✓		17h	2	FR
TC5BRB1	Building rehabilitation	✓	✓			✓	28h	3	FR
TC5BAOEM1	Tender and market research	✓	✓			✓	17h	2	FR
TC5BGC1	Climatic engineering	✓	✓		✓		33h	3	FR
TC5BTS1	Sanitary technics	✓	✓			✓	12,5	2	FR
TC5BE1	Electricity	✓	✓			✓	16h	2	FR
TC5BLM	Lean management	✓		✓		✓	15h	2	FR
TC5BPC1	Building pathology	✓			✓		15h	2	FR
UE2	Final Projet								
								10	FR
UE3	Expression and communication								
TC5BFLE1	French as a foreign language	✓	✓		✓		30h	3	FR

about 350h **33**

End-of-study project / Final project

Public and civil engineering works , town and country planning : advanced technical education and project in groups of 4 or 5 students . Given a specific area, the team will have to design art of road and a bridge: Road layout, road worksite organisation and management, bridge conception and methods,topography, pricing, lightening and signaling A full project which leads to the final tender .

Code	subjects	lectures	tutorials	Practical work	Exam	Project	Workload / semester	ECTS	LANGUAGE
UE1	Additional technical modules								
TC5RTTVRD1	Layouts,earthwork and roadways	✓		✓		✓	92h	6	FR
TC5RCP1	Bridge conception	✓		✓		✓	20h	1	FR
TC5RMEP1	Bridge execution method	✓		✓		✓	20h	1	FR
TC5ROCR1	Road worksite organisation	✓			✓		21h	1	FR
TC5RPM1	Pathology and maintance of PW	✓	✓		✓		33h	2	FR
TC5RTST1	Underground works	✓				✓	15h	1	FR
TC5RR1	Roadways	✓	✓		✓	✓	26h	2	FR
TC5RCR1	Road traffic	✓			✓		11h	1	FR
TC5RES1	Lightening and signalling	✓			✓		15h	1	FR
TC5REP1	Pricing	✓	✓		✓		15,5h	1	
TC5RTMA1	Maritime and airport works	✓	✓		✓		27h	2	
TC5RVF	Railways	✓			✓		11h	1	
UE2	Final Projet								
								10	FR
UE3	Expression and communication								
TC5BFLE1	French as a foreign language	✓	✓		✓		30h	3	FR

about 400h **33**