

CIVIL AND STRUCTURAL ENGINEERING (GCC, with VET) URBAN PLANNING & INFRASTRUCTURES TRACK - 2024 2025		
YEAR 2 (M1) OF ENPC MSc IN ENGINEERING		ECTS
ENGINEER INTERNSHIP *		2,5
COACHING AND CAREER GUIDANCE (AOP2A)		0,5
INCEPTION WEEKS (mandatory)		5
September 2024 : 2nd to 6th	Introduction to drawings and computer graphics (Rhino, Photoshop) 1 - O2DMO**	1
September 2024 : 16th to 20th	Introduction to construction materials - O2IMC	1
November 2024 : 18th to 22nd	Week "Construction and biodiversity" - TRENC	1
February 2025 : 3rd to 7th	Week "Engineering geology : principles and practice" - O2GEO	1
March 31st to April 4th 2025	Inter-department week - O2DPT	1
CORE CURRICULUM (mandatory)		9,5
September 2024 : 9th to 13th	Business management - O2GE1	1,5
S3	Numerical statistics and data analysis - STNUM (IMI)	2
S4	Introduction to law - DROA/DROE	3
S3 or S4	Course to be chosen in the Humanities and Social Sciences Department (SHS)	3
DEPARTMENT MANDATORY COURSES		28
S3	Rock mechanics - MECSR	3
S3	Structural mechanics (elastic structures) - MECST	3
S3	Methods for territorial analysis - MASYT (VET)	4,5
S4	Mechanics of elastic structures 2 - MECS2	1,5
S4	Design of geotechnical structures (Theoretical part) - APGE1	3
S4	Applied Design of Geotechnical Works - EXPGE	3
S4	VET Department seminar - VETSD (VET)	6
S4	City and regional planning - AMENA (VET)	4
S4 - April 11th	Accessibility Day - JPACC	0
DEPARTMENT MANDATORY COURSES TO BE CHOSEN IN A LIST 2 courses to be chosen in the list below		
S3	Urban Planning Economics - EUEDA (VET)	1,5
S4	Urban and territorial metabolism - PGEDE (VET)	1,5
S4	Local public finance and policies - FILOC (VET)	3
S4	Econometrics of discrete choices - ECCHD (SEGF)	2
DEPARTMENT MANDATORY COURSES TO BE CHOSEN IN A LIST 2 courses to be chosen in the list below		6
S3	Fluid mechanics for incompressible flows - MECA 1 & 2	3
S4	Dynamics of Structures and Constructions - DYSTR	3
S4	Structural design (theoretical part) - APST1	3
ELECTIVE COURSES Courses to be chosen in the list below or among the whole school catalogue, taking into account their compatibility with mandatory courses		
S3	Operations research - REOP (GI)	3
S3	Introduction to drawings and computer graphics (Rhino, Photoshop) 2 - IDSMO	3
S3	Built works: from project to construction - OUVGC	3
S4	Statistics : practice of learning methods - PRAMA (IMI)	2
S4	Urban economics - ECOGT (SEGF)	3
S3 & S4	SPORT (mandatory)	1
S3 & S4	LANGUAGES (mandatory)	7,5
TOTAL YEAR 2 (M1)		60

* The ectS of engineer internship will be acquired at the beginning of year 3 (M2)

** This code is the course's code in our online catalogue (<http://gede.enpc.fr/Programme/Default.aspx?Langue=en>)

Letters in brackets stand for the department (other than GCC) which delivers the course :
GMM : Génie Mécanique et Matériaux - Mechanical Engineering and Materials Science
GI : Génie Industriel - Industrial engineering
IMI : Ingénierie Mathématique et Informatiques - Applied Mathematics and Computer science
SEGF : Sciences économiques, Gestion, Finance - Economics, Management, Finance
VET : Ville Environnement Transport - City, Environment, Transportation

CAUTION

You must validate at least **48,5 ectS** in scientific courses (excl. Internship, AOP2A, languages and sport) to validate your Year 2 (M1)

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YEAR 3 (M2) OF ENPC MSc IN ENGINEERING		ECTS
September 2024 : 5th & 6th	FEEDBACK ON ENGINEER INTERNSHIP - REX* (only for long internships) - 03STA	1,5
	INCEPTION WEEKS (mandatory)	3
September 2024 : 9th to 13th	Week dedicated to Innovative materials in concrete construction - 03ATB** OR Masonry wall : conception, construction and deconstruction - 03ADL OR Building freeforms - 03ATC OR Design of an arch - 03ATT OR Construire en terre - 03ATE	1
September 2024 : 16th to 20th	Future construction technologies : Techniques and Building Information Modeling (BIM) - CHBIM	1
November 2024 : 18th to 22nd	Department week OR ATHENS week - SEP	1
DEPARTMENT MANDATORY COURSES		15
S5	Teamwork : Bridges - GCPPO OR Highway - GCPRO OR Marine energy project - EXPHY OR Microeconomic Modelization for the Urban Planning - MMAUR (VET)	7,5
S5	Reinforced concrete - BAEP 1 (GMM)	1,5
S5	Life cycle analysis (ACV) - Theory (ANCYV) + Application (ANCGC)	3
S5	From infrastructure to urban project - CSIUR (VET)	3
DEPARTMENT MANDATORY COURSES (to be chosen in a list) 1 course to be chosen in the list below		3
S5	Advanced geotechnics - GEOME	3
S5	Finite elements for civil engineering - CALEF	3
ELECTIVE COURSES Courses to be chosen in the list below or in the whole school catalogue, taking into account their compatibility with GCC department mandatory courses		
S5	Urban planning and design - COURB	2
S5	Bridge design and construction - COPO1	3
S5	Civil engineering project management and economics - GEPCO	3
S5	Structures, energy and risks - CORI1	3
S5	Prestressed concrete - BAEP2 (GMM)	3
S5	LANGUAGES (mandatory)	4,5
S6	END-OF-STUDY PROJECT (17 weeks at least)	30
TOTAL YEAR 3 (M2)		60

* The 1,5 ects obtained during Feedback of Engineer internship are excluded from the required 25,5 ects

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VET : Ville Environnement Transport - City, Environment, Transportation

SHS - Sciences Humaines et Sociales - Humanities and Social Sciences

Scientific courses
excluding sport, languages and REX
25,5 ects minimum