

CIVIL AND STRUCTURAL ENGINEERING (GCC, with VET) " GEOTECHNICS, INFRASTRUCTURES & TRANSPORT" TRACK - 2025 2026		
YEAR 2 (M1) OF ENPC MSc IN ENGINEERING		ECTS
INCEPTION WEEKS (mandatory)		3,5
September 2025 : 8th to 12th	Introduction to drawings and computer graphics (Rhino, Photoshop) 1 - O2DMO*	1
September 2025 : 15th to 19th	Introduction to construction materials - O2IMC	1
November 2025 : 17th to 21st	Week "Construction and biodiversity" - TRENC	1
February 2025 : 2nd to 6th	Week "Engineering geology : principles and practice" - O2GEO	0,5
CORE CURRICULUM (mandatory)		10
S3	Numerical statistics and data analysis - STNUM (IMI)	1,5
S3	Course to be chosen in the Humanities and Social Sciences Department (SHS)	3
S3	Business management - O2GE2 (MOOC + in person day on September 15th)	0,5
S3	Coaching and career guidance - AOP2	0,5
S4	Introduction to law	3
S4	Foresight and uncertainty - PR1CE	1,5
TRACK MANDATORY COURSES		31,5
S3	Rock mechanics - MECSR	3
S3	Structural mechanics (elastic structures) - MECST	3
S3	Traffic engineering - ITRA 1 (VET)	3,5
S3	Operations research - REOP (GI) OR Introduction to Operations research - TIRO (TRADD Master programm) recommended for DD students (1,5 ECTS)	3
S3	Methods for territorial analysis - MASYT (VET)	4,5
S4	Mechanics of elastic structures 2 - MECS2	1,5
S4	Design of Geotechnical Works (Theory) - APGE1	3
S4	Applied Design of Geotechnical Works - EXPGE	3
S4	Econometrics of discrete choices - ECCHD (SEGF)	2
S4	VET Department seminar - VETSD (VET)	5
S4 - April 10th	Accessibility Day - JPACC	0
ELECTIVE COURSES		
Courses to be chosen in the list below or among the whole school catalogue, so as to reach 30 ECTS per semester as a minimum (2,5 ECTS for S3 and 5 ECTS for S4)		7,5
S3	Built works: from project to construction - OUVGC	3
S3	Urban transport management - TRCUR (VET)	1,5
S3	Introduction to transportation safety and security - ISSTR (VET)	2
S4	Dynamics of Structures and Constructions - DYSTR	3
S4	Local public finance and policies - FILOC (VET)	3
S4	Transportation economics - ECOPT (VET)	2
S4	Structural design (theoretical part) - APST1	3
S4	Statistics : practice of learning methods - PRAMA (IMI)	1,5
S4	Applied project for Machine Learning - PROMA	1,5
S3 & S4	SPORT (mandatory)	1
S3 & S4	LANGUAGES (mandatory)	4
	ENGINEER INTERNSHIP **	2,5
TOTAL YEAR 2 (M1)		60

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

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

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, Transp+B26ortation
 SHS - Sciences Humaines et Sociales - Humanities and Social Sciences

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YEAR 3 (M2) OF ENPC MSc IN ENGINEERING		ECTS
September 2025 : 4th & 5th	FEEDBACK ON ENGINEER INTERNSHIP - REX* (only for long internships) - 03STA	1,5
	INCEPTION WEEKS (mandatory)	4
September 2025 : 8th to 12th	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 Earth construction - 03ATE	1,5
September 2025 : 15th to 19th	Future construction technologies : Techniques and Building Information Modeling (BIM) - CHBIM OR Challenge "Planning, Logistics, Environment" - 03AET	1
November 2025 : 17th to 21st	Department week OR ATHENS week - SEP	1,5
DEPARTMENT MANDATORY COURSES		16,5
S5	Teamwork : Bridges - GCPPO OR Highway - GCPRO OR Marine energy project - EXPHY	7,5
S5	Life cycle analysis - Theory (ANCYV) + Application (ANCGC)	3
S5	Reinforced and prestressed concrete - BAEP 1&2 (GMM)	3
S5	Challenges, sciences and tools for the transition of cities and territories - DSOTV (VET)	3
ELECTIVE COURSES Courses to be chosen in the list below or among the whole school catalogue, so as to reach a minimum of 30 ECTS for S5		6
S5	Building Materials and Engineering Design - CCMAT	3
S5	Freight Transport System - STMAR (VET)	3
S5	Advanced geotechnics - GEOME	3
S5	Advanced construction dynamics - DYNAV	3
S5	Design of underground structures - COTU1	3
S5	Civil engineering project management and economics - GEPCO	3
S5	Finite elements for civil engineering - CALEF	3
S5	From infrastructure to urban project - CSIUR (VET)	3
S5	Station design and development - CAGAR (VET)	1,5
S5	Simulation and regulation of urban public transport traffic - SRTTC (VET)	3
S5	LANGUAGES (mandatory)	2
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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