

CIVIL AND STRUCTURAL ENGINEERING (GCC) CLASSIC TRACK "STRUCTURE AND GEOTECHNICS" - 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)		13
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	Applications of machine learning and project - PRAMA & PROMA (IMI)	3
S4	Foresight and uncertainty - O2DPT	1,5
DEPARTMENT MANDATORY COURSES		33
S3	Continuum mechanics : introduction and basis (mandatory update for DD students) - O2MVD	0
S3	Rock mechanics - MECSR	3
S3	Structural mechanics (elastic structures) - MECST	3
S3	Fluid mechanics for incompressible flows - MECA 1 & 2	3
S3	Building materials and engineering design - CCMAT	3
S3	Introduction to drawings and computer graphics - IDSMO	3
S3	Built works: from project to construction - OUVGC	3
S3	Thermics - TERGC	1,5
S4	Mechanics of elastic structures 2 - MECS2	1,5
S4	Plasticity, limit analysis and yield design - PLAST	3
S4	Dynamics of structures and constructions - DYSTR	3
S4	Structural design (Theoretical part) - APST1	3
S4	Design of geotechnical structures (theoretical part) - APGE1	3
S4 - April 10th	Accessibility Day - JPACC	0
DEPARTMENT MANDATORY COURSES TO BE CHOSEN IN A LIST		3
Please choose 1 of the 2 courses below		
S4	Structural design (Application) - EXPST	3
S4	Design of geotechnical structures (Application) - EXPGE	3
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, Transportation
 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		10,5
S5	Teamwork : Dams - GCPBR OR Bridges - GCPPO OR Highway - GCPRO OR Marine energy project - EXPHY OR Bioclimatic building design project - BABIO	7,5
S5	Life cycle analysis (ACV) - Theory (ANCYV) + Application (ANCGC)	3
DEPARTMENT MANDATORY COURSES (to be chosen on a list)		9
3 courses to be chosen in the list below and distributed over the 2 groups : materials and advanced		
Materials (at least 1 course)		
S5	Reinforced and prestressed concrete - BAEP 1 & 2 (GMM)	3
S5	Wooden structures - CASBO	3
S5	Steel construction - CASME	3
Advanced courses (at least 1 course)		
S5	Advanced construction dynamics - DYNAV	3
S5	Advanced structural design - COAST	3
S5	Finite elements for civil engineering - CALEF	3
S5	Geomechanics and advanced geotechnics - GEOME	3
S5	Advanced concrete - BETAV	3
ELECTIVE COURSES		3
1 course minimum to be chosen among the courses proposed by the department (see below) or among the whole school catalogue, so as to validate a minimum of 30 ECTS in the semester		
S5	Civil engineering project management and economics - GEPCO	3
S5	Buildings energy and comfort performance - APAM1	3
S5	Acoustics - ACOUS	1,5
S5	Bridge design and construction - COPO1	3
S5	Structures, energy and risks - CORI1	3
S5	Design of underground structures - COTU1	3
S5	Thermodynamics of Architecture - THAR (ENSAPE***)	1,5
S5	Building renovation : knowledge and practices - RENO (ENSAPE***)	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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*** ENSAPE : Ecole Nationale Supérieure d'Architecture de Paris-Est

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