

CIVIL AND STRUCTURAL ENGINEERING (GCC) CLASSIC 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		27
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 (Rhino, Photoshop) 2 - IDSMO	3
S3	Built works: from project to construction - OUVGC	3
S4	Mechanics of elastic structures 2 - MECS2	1,5
S4	Thermics - TERGC	1,5
S4	Plasticity, limit analysis and yield design - PLAST	3
S4	Dynamics of structures and constructions - DYSTR	3
S4 - April 11th	Accessibility Day - JPACC	0
DEPARTMENT MANDATORY COURSES TO BE CHOSEN IN A LIST Please choose 1 couple of theoretical/application courses among the 2 couples below		6
S4	Structural design (Theoretical part + application) - APST1 & EXPST	3+3
S4	Design of geotechnical structures (theoretical part + application) - APGE & EXPGE	3+3
ELECTIVE COURSES Course to be chosen among the whole school catalogue, including those proposed by GCC department in the list below. You can choose the theoretical part of "Structural design" or "Design of geotechnical structures" if not chosen as department mandatory couple		1 (minimum)
S4	Acoustics - ACOUS	1,5
S4	Building renovation project - REHAB	3
S4	Statistics : practice of learning methods - PRAMA (IMI)	2
S4	Numerical simulation of aeraulics and air quality in urban areas - SATUR (GMM)	1,5
S4	Energy production engineering - INRGY (GMM)	1,5
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
 SHS - Sciences Humaines et Sociales - Humanities and Social Sciences

CAUTION

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

CIVIL AND STRUCTURAL ENGINEERING (GCC) CLASSIC TRACK - 2024 2025		
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		10,5
S5	Teamwork : Dams - GCPBR OR Bridges - GCPPO OR Highway - GCPRO OR Marine energy project - EXPHY OR Teamwork : Bioclimatic building design project BABIO (to be chosen along with "Buildings energy and comfort performance - APAM1", highly recommended)	7,5
S5	Life cycle analysis (ACV) - Theory (ANCYV) + Application (ANCGC)	3
DEPARTMENT MANDATORY COURSES (to be chosen on a list) 3 courses (9 ects as a minimum) to be chosen in the list below and distributed over the 2 groups : materials and advanced		9
	Materials	
S5	Reinforced and prestressed concrete - BAEP 1 & 2 (GMM)	3
S5	Wooden structures - CASBO	3
S5	Steel construction - CASME	3
	Advanced courses	
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 1 course to be chosen among the courses proposed by the department (see below) or among the whole school catalogue, taking into account their compatibility with department mandatory courses		3
S5	Civil engineering project management and economics - GEPCO	3
S5	Buildings energy and comfort performance - APAM1	3
S5	Design of underground structures - COTU1	3
S5	Bridge design and construction - COPO1	3
S5	Structures, energy and risks - COR11	3
S5	Architectural geometry - MANGT	3
S5	Environment-based design - PERFO (MANGT is a prerequisite)	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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Scientific courses
 excluding sport, languages and REX
25,5 ects minimum