



الجمهورية الجزائرية الديمقراطية الشعبية
 Democratic and Popular Republic of Algeria
 وزارة التعليم العالي والبحث العلمي
 Ministry of Higher Education and Scientific Research
 اللجنة الوطنية للميدان العلوم والتكنولوجيا
 National Educational Committee for the Science and Technology sector



HARMONIZED ACADEMIC MASTER

National Program

Updated 2022

Domain	Sector	Speciality
<i>Science and Technology</i>	<i>Civil Engineering</i>	<i>Structures</i>

I – Master's identity card

Access conditions

Sector	Harmonized Master	Licenses giving access to the master's degree	Ranking by license compatibility	Coefficient assigned to the license
Civil engineering	Structures	Civil Engineering	1	1.00
		Public works	2	0.80
		Mechanical construction	3	0.70
		Other licenses in the ST domain	5	0.60

II – Half-yearly organization sheets for the specialty's teaching



Semester 1 : Master Structures

Educating Unit	Materials	Credits	Coefficient	Weekly hourly volume			Semester Hourly Volume (15 weeks)	Additional Work in Consultation (15 weeks)	Evaluation mode	
	Title			Course	DW	PW			Continuou s control	Exam
Fundamental Unit Code : UEF 1.1.1 Credits: 8 Coefficients : 4	Structural mechanics	4	2	1h30	1h30		45h00	55h00	40%	60%
	Dynamics of structures 1	4	2	1h30	1h30		45h00	55h00	40%	60%
Fundamental Unit Code : UEF 1.1.2 Credits: 10 Coefficients : 5	Reinforced concrete structures 1	4	2	1h30	1h30		45h00	55h00	40%	60%
	Metallic structures	6	3	3h00	1h30		67h30	82h30	40%	60%
Methodological Unit Code : UEM 1.1 Credits: 9 Coefficients : 5	Programming supplement	4	2	1h30		1h30	45h00	55h00	40%	60%
	Experimental methods	2	1			1h30	22h30	27h30	100%	
	Innovative materials and sustainability	3	2	1h30		1h00	37h30	37h30	40%	60%
Discovery Unit Code : UED 1.1 Credits: 2 Coefficients : 2	Building	1	1	1h30			22h30	02h30		100%
	Public Procurement Code	1	1	1h30			22h30	02h30		100%
Transversal Unit Code : UET 1.1 Credits: 1 Coefficients : 1	Technical English and Terminology	1	1	1h30			22h30	02h30		100%
Total semestre 1		30	17	15h00	6h00	4h00	375h00	375h00		



Semester 2 Master Structures

Educating Unit	Materials	Credits	Coefficient	Weekly hourly volume			Semester Hourly Volume (15 weeks)	Additional Work in Consultation (15 weeks)	Evaluation mode	
	Title			Course	DW	PW			Continuous control	Exam
Fundamental Unit Code : UEF 1.2.1 Credits: 10 Coefficients : 5	Elasticity	6	3	3h00	1h30		67h30	82h30	40%	60%
	Dynamics of structures 2	4	2	1h30	1h30		45h00	55h00	40%	60%
Fundamental Unit Code : UEF1.2.2 Credits: 8 Coefficients : 4	Reinforced concrete structures 2	4	2	1h30	1h30		45h00	55h00	40%	60%
	Foundations and supports	4	2	1h30	1h30		45h00	55h00	40%	60%
Methodological Unit Code : UEM 1.2 Credits: 9 Coefficients : 5	Finite element methods	5	3	1h30	1h30	1h00	60h00	65h00	40%	60%
	Metallic construction project	4	2	1h30		*1h30	45h00	55h00	*70%	30%
Discovery Unit Code : UED 1.2 Credits: 2 Coefficients : 2	Pathologies and rehabilitation of structures	1	1	1h30			22h30	02h30		100%
	Natural and technological risks	1	1	1h30			22h30	02h30		100%
Transversal Unit Code : UET 1.2 Credits: 1 Coefficients : 1	Ethics, professional conduct and intellectual property	1	1	1h30			22h30	02h30		100%
Total semestre 2		30	17	15h00	7h30	2h30	375h00	375h00		

* Les séances de TP de la matière « **Projet constructions métalliques** », sont des séances d'encadrement présentielle et se déroulent sous forme d'atelier. Elles ne seront pas comptabilisées autant que séances de travaux pratiques conventionnelles.

Semester 3 Master Structures

Educating Unit	Materials	Crédits	Coefficient	Weekly hourly volume			Semester Hourly Volume (15 weeks)	Additional Work in Consultation (15 weeks)	Evaluation mode	
	Title			Course	DW	PW			Continuous control	Exam
Fundamental Unit Code : UEF 2.1.1 Credits: 10 Coefficients : 5	Prestressed concrete	6	3	3h00	1h30		67h30	82h30	40%	60%
	Plasticity and damage	4	2	1h30	1h30		45h00	55h00	40%	60%
Fundamental Unit Code : UEF 2.1.2 Credits: 8 Coefficients : 4	Earthquake engineering	4	2	1h30	1h30		45h00	55h00	40%	60%
	Special works	4	2	1h30	1h30		45h00	55h00	40%	60%
Methodological Unit Code : UEM 2.1 Credits: 9 Coefficients : 5	Reinforced concrete structures project	6	3	1h30		*3h00	67h30	82h30	*70%	30%
	Modeling of structures	3	2			2h30	37h30	37h30	100%	
Discovery Unit Code : UED 2.1 Credits: 2 Coefficients : 2	Building thermal energy	1	1	1h30			22h30	02h30		100%
	General construction processes	1	1	1h30			22h30	02h30		100%
Transversal Unit Code : UET 2.1 Credits:1 Coefficients : 1	Documentary research and dissertation design	1	1	1h30			22h30	02h30		100%
Total semestre 3		30	17	13h30	6h00	5h30	375h00	375h00		

*The practical sessions for the subject "Reinforced Concrete Structures Project" are face-to-face supervision sessions and take place in the form of a workshop. They will not be counted as much as conventional practical sessions.

