



الجمهورية الجزائرية الديمقراطية الشعبية
 Democratic and Popular Republic of Algeria
 وزارة التعليم العالي والبحث العلمي
 Ministry of Higher Education and Scientific Research
 اللجنة الوطنية لميدان 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>Geotechnics</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	Geotechnics	Civil Engineering	1	1.00
		Hydraulic	1	1.00
		Public works	1	1.00
		Mining	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 : Geotechnics

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 1.1.1 Crédits : 8 Coefficients : 4	Mechanics of continuous medium	4	2	1h30	1h30		45h00	55h00	40%	60%
	Advanced soil mechanics	4	2	1h30	1h30		45h00	55h00	40%	60%
Fundamental Unit Code : UEF 1.1.2 Crédits : 10 Coefficients : 5	Slopes and supports	4	2	1h30	1h30		45h00	55h00	40%	60%
	Foundations	4	2	1h30	1h30		45h00	55h00	40%	60%
	Applied geophysics	2	1	1h30			22h30	27h30		100%
Methodological Unit Code : UEM 1.1 Crédits : 9 Coefficients : 5	Programming supplement	3	2	1h30		1h00	37h300	37h30	40%	60%
	Experimental methods	2	1	1h30			22h30	27h30		100%
	Geotechnical testing and site investigation 1	4	2	1h30		1h30	45h00	55h00	40%	60%
Discovery Unit Code : UED 1.1 Crédits : 2 Coefficients : 2	General processes of geotechnical works	1	1	1h30			22h30	22h30		100%
	Geotechnical hazards and risks	1	1	1h30			22h30	22h30		100%
Transversal Unit Code : UET 1.1 Crédits : 1 Coefficients : 1	Technical English and Terminology	1	1	1h30			22h30	22h30		100%
Total semestre 1		30	17	16h30	6h00	2h30	375h00	375h00		

Semester 2 Master : Geotechnics

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 Crédits : 8 Coefficients : 4	Mechanics of deformable solids	4	2	1h30	1h30		45h00	55h00	40%	60%
	Soil dynamics	4	2	1h30	1h30		45h00	55h00	40%	60%
Fundamental Unit Code : UEF 1.2.2 Crédits : 10 Coefficients : 5	Soil rheology	4	2	1h30	1h30		45h00	55h00	40%	60%
	Geostatistics	4	2	1h30	1h30		45h00	55h00	40%	60%
	Earth dams	2	1	1h30			22h300	27h30		100%
Methodological Unit Code : UEM 1.2 Crédits : 9 Coefficients : 5	Finite element methods	5	3	1h30	1h00	1h30	60h00	65h00	40%	60%
	Geotechnical testing and site investigation 2	4	2	1h30		1h30	45h00	55h00	40%	60%
Discovery Unit Code : UED 1.2 Crédits : 2 Coefficients : 2	Hydrogeology	1	1	1h30			22h30	22h30		100%
	Geotechnical standards	1	1	1h30			22h30	22h30		100%
Transversal Unit Code : UET 1.2 Crédits : 1 Coefficients : 1	Ethics, professional conduct and intellectual property	1	1	1h30			22h30	22h30		100%
Total semestre 2		30	17	15h00	7h00	3h00	375h00	375h00		

Semester 3 Master : Geotechnics

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 Crédits : 8 Coefficients : 4	Dynamics of geotechnical works	4	2	1h30	1h30		45h00	55h00	40%	60%
	Failure calculation and limit analysis	4	2	1h30	1h30		45h00	55h00	40%	60%
Fundamental Unit Code : UEF 2.1.2 Crédits : 10 Coefficients : 5	Rock mechanics	4	2	1h30	1h30		45h00	55h00	40%	60%
	Tunnels and underground works	4	2	1h30	1h30		45h00	55h00	40%	60%
	Road geotechnics	2	1	1h30			22h30	27h30		100%
Methodological Unit Code : UEM 2.1 Crédits : 9 Coefficients : 5	Soil improvement	4	2	1h30		1h30	45h00	55h00	40%	60%
	Modeling of geotechnical works	2	1			1h30	22h30	27h30	100%	
	Geographic Information Systems	3	2	1h30		1h00	37h30	37h30	40%	60%
Discovery Unit Code : UED 2.1 Crédits : 2 Coefficients : 2	Pathology of geotechnical works	1	1	1h30			22h30	22h30		100%
	Market Codes	1	1	1h30			22h30	22h30		100%
Transversal Unit Code : UET 2.1 Crédits : 1 Coefficients : 1	Documentary research and dissertation design	1	1	1h30			22h30	22h30		100%
Total semestre		30	17	15h00	6h00	4h00	375h00	375h00		

