



People's Democratic Republic of
Algeria
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Algeria
Ministry of Higher Education
and Scientific Research
Ministry of Higher Education
and Scientific Research

Updated May 2025

TRAINING OFFER

ENGINEER D'ETAT

Specific to TM baccalaureate holders

Establishment	Faculty / Institute	Department

Domain	Stream	Specialty:
<i>Science and Technologies</i>	<i>Electrical engineering</i>	<i>Industrial Electricity</i>

Title: Industrial Electricity
Academic year

Establishment:



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Ministry of Higher Education and
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National Pedagogical
Committee for
Science and
Technology
National Pedagogical
Committee of the Science
and Technology Field



View Configuration State Engineer

Department	College/Institute	Enterprise

Specialization	Branch	The square
	Electrical Engineering	Science and Technology

Title: Industrial Electricity
Academic year

Establishment:

Semester organisation sheets for the specialty's courses

Title: Industrial Electricity
Academic year

Establishment:

Semester 5 :

Semester	Teaching unit	Subject headings	Code	Credits	Coefficients	Weekly Hourly Volume			VHS	Evaluation method	
						Course	TD	TP		Continuous	Final
5	Fundamental Code: UEF5.1 Credits:10 Coefficients: 6	Electrical Machines	GOI 5.1	6	4	1h30	3:00 pm	1h30	90:00	40% (20%TD + 20%TP)	60%
		Electromagnetic Field Theory	GOI 5.2	4	2	1h30	1h30		45h00	40%	60%
	U E Fundamental Code: UEF5.2 Credits:10 Coefficients: 6	Continuous linear servo systems	IGE 5.3	5	3	1h30	1h30	1h30	67h30	40% (20%TD + 20%TP)	60%
		Advanced sequential logic	IGE 5.4	5	3	1h30	1h30	1h30	67h30	40% (20%TD + 20%TP)	60%
	U E Methodological Code: EMU 5.1 Credits:7 Coefficients: 4	Industrial Electrical Schematics	IGE 5.5	3	2	1h30		1h30	45h00	40%	60%
		Applied numerical methods-Python		4	2	1h30		1h30	45h	40%	60%
	U E Discovery Code: UED 5.1 Credits:1 Coefficients: 1	Electrical power generation	IGE 5.7	1	1	1h30			10:30 p.m.		100%
	UE Transversal Code: UET 5.1 Credits:2 Coefficients: 2	Industrial maintenance		1	1	1h30					
Technical English related to the specialty		IGE 5.8	1	1	1h30			10:30 p.m.		100%	
Total Hourly Volume				30	19	1:30	07:30 am	07:30 am	427h30		

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Establishment:

Semester 6

Semester	Teaching unit	Subject headings	Code	Credits	Coefficients	Weekly Hourly Volume			VHS	Evaluation method	
						Cours	TD	TP		Continuous assessment	Final exam
6	UE Core Code :UEF 6.1 Credits:11 Coefficients: 7	Power Grids	GOI 6.1	6	4	1h30	3:00 pm	1h30	90:00	40% (20%TD + 20%TP)	60%
		Power Electronics I	IGE 6.2	5	3	1h30	1h30	1h30	67h30	40% (20%TD + 20%TP)	60%
	UE Fundamental Code: UEF 6.2 Credits:14 Coefficients: 8	Industrial regulation	IGE 6.3	5	3	1h30	1h30	1h30	67h30	40% (20%TD + 20%TP)	60%
		Microprocessors and Microcontrollers	IGE 6.4	4	2	1h30		1h30	45h00	40%	60%
		High-voltage technology	IGE 6.5	5	3	1h30	1h30	1h30	67h30	40% (20%TD + 20%TP)	60%
	Methodological UE Code : UEM 6.1 Credits:4 Coefficients: 3	Sensors and measurement chains	IGE 6.6	3	2	1h30		1h30	45h00	40%	60%
		Internship in a company	IGE 6.7	1	1	Volume horaire hors quota, Tutoring 1h30 TP				100%	
UE Transversal Code: UET 6.1 Credits:1 Coeff: 1	Entrepreneurship and start-ups	IGE 6.8	1	1	1h30			10:30 p.m.		100%	
Total Hourly Volume				30	19	10:30 a m	7:30 a m	10:30 a m	405h00		

Title: Industrial Electricity
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Establishment:

Semester 7

Semester	Teaching unit	Subject headings	Code	Credits	Coefficients	Weekly Hourly Volume			VHS	Evaluation method	
						Courses	TD	TP		Continuous assessment	Final exam
7	UE Fundamental Code: UEF 6.1 Credits:9 Coefficients: 5	Electrical control	GOI 7.1	5	3	1h30	1h30	1h30	67h30	40% (20%TD + 20%TP)	60%
		Electrical power transmission and distribution networks	GOI 7.2	4	2	1h30	1h30		45h00	40%	60%
	UE Fundamental Code: UEF 6.2 Credits:13 Coefficients: 8	Power Electronics II	IGE 7.3	5	3	1h30	1h30	1h30	67h30	40% (20%TD + 20%TP)	60%
		In-depth electrical machines	IGE 7.4	5	3	1h30	1h30	1h30	67h30	40% (20%TD + 20%TP)	60%
		Industrial Automation.1	IGE 7.5	3	2	1h30		1h30	45h00	40%	60%
	UE Methodological Code: EMU 6.1 Credits:7 Coefficients: 5	Advanced Python Programming 4 2Optimization	IGE 7.6	2	2	1h30		1h30	45h00	40%	60%
		Protecting power grids	IGE 7.7	3	2	1h30		1h30	45h00	40%	60%
		Professional Personal Project	IGE 7.8	2	1	Volume horaire hors quota, Tutoring 1h30 TP				100%	
	UE Transversal Code: UET1.2 Credits:1 Coefficients: 1	Electrical Engineering Standards	GOI 7.9	1	1	1h30			10:30 p.m.		100%
Total Hourly Volume				30	19	12:00 p.m.	6 hours	10:30 a.m.	427h30		

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Semester	Teaching unit	Subject headings	Code	Credits	Coefficient	Weekly Hourly Volume			VHS	Evaluation method	
						Courses	TD	TP		Continuous assessment	Final exam
8	UE Fundamental Code: UEF 8.1 Credits:13 Coefficients: 7	Modeling and optimization of power grids	IGE 8.1	4	2	1h30		1h30	45h	40%	60%
		Modeling and identification of electrical machines	IGE 8.2	4	2	1h30		1h30	45h00	40%	60%
		Sampled Servo Systems	GOI 8.3	5	3	1h30	1h30	1h30	67h30	40% (20%TD + 20%TP)	60%
	UE Fundamental Code: UEF 8.2 Credits:7 Coefficients: 4	Industrial automation.2	IGE 8.4	4	2	1h30		1h30	45h	40%	60%
		Energy Quality and EMC		3	2	1h30	1h30				
	Methodological UE Code : UEM 8.1 Credits:7 Coefficients: 5	Industrial Computing	IGE 8.5	3	2	1h30		1h30	45h	40%	60%
		Dimensioning of industrial facilities	IGE 8.6	3	2	1h30		1h30	45h	40%	60%
		Internship in a company	IGE 8.7	1	1	Volume horaire hors quota, Tutoring 1h30 TP				100%	
	EU Transversal Code: UET 8.1 Credits:3 Coefficients: 3	Elements of Applied AI		2	2	1h30		1h30	45h	40%	60%
		Compliance with ethical standards and rules and integrity	IGE 8.9	1	1	1h30			10:30 p.m.		100%
Total Hourly Volume				30	19	1:30	3	12 p.m.	427h30		

Semester 8

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Establishment:

Semester 9

Semester	Teaching unit	Subject headings	Code	Credits	Coefficients	Weekly Hourly Volume			VHS	Evaluation method		
						Courses	TD	TP		Continuous assessment	Final exam	
9	UE Fundamental Code: UEF19.1 Credits:14 Coefficients: 8	Tuned electric drives	IGE 9.1	5	3	1h30	1h30	1h30	90:00	40% (20%TD + 20%TP)	60%	
		Electricity grid management	IGE 9.2	5	3	1h30	1h30	1h30	45h00	40%	60%	
		Design of electric drive systems			4	2	1h30		1h30		40%	60%
	Core UE Code :UEF 9.2 Credits:9 Coefficients: 5	Power Electronics Design	IGE 9.3	5	3	1h30	1h30	1h30	67h30	40% (20%TD + 20%TP)	60%	
		Monitoring and Diagnostics of Electrical Systems	IGE 9.4	4	2	1h30		1h30	45h	40%	60%	
	Methodological UE Code : UEM 9.1 Credits:3 Coefficients: 2	Smart Grids	IGE 9.5	3	2	1h30		1h30	45h	40%	60%	
	Transversal UE Code: UET9.1 Credits:4 Coefficients: 4	Industrial Health and Safety	IGE 9.8	1	1	1h30			10:30 p.m.		100%	
		Reverse engineering			2	2	1h30		1h30	45h	40%	60%
		Bibliographic research and dissertation writing	IGE 9.9	1	1	1h30			10:30 p.m.		100%	
	Total Hourly Volume				30	19	1:30	4h30	10:30	427h30		

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