



People's Democratic Republic of Algeria

Ministry of Higher Education and Scientific Research

National Pedagogical Committee for the Sciences and Technologies Field



HARMONIZATION TRAINING PROGRAM OFFER ACADEMIC MASTER

2016 - 2017

Field	Stream	Specialization
<i>Science And Technology</i>	<i>Telecommunication</i>	<i>Telecommunication Systems</i>

Access Conditions

(Indicate the bachelor's degrees that may lead to this Master.)

Master Stream	Eligible Licenses	Licenses giving access to the master's program	Compatibility Rank	Assigned Coefficient
Telecommunication	Telecommunication Systems	Telecommunication	1	1.00
		Electronics	2	0.80
		Biomedical Engineering	3	0.70
		Automation	3	0.70
		Other licenses in ST domain	5	0.60

Semester course organization sheets
for the specialization

Semester 1 Courses

Teaching unit	Subject	Credits	Coefficient	Weekly Hours			Semester Volume (15 semaines)	Consultation Work (15 semaines)	Assessment method	
	module			Course	TD	TP			Continuous Assessment	Exam
Fundamental UE Code : UEF 1.1.1 Credits: 10 Coefficients: 5	Advanced Digital Communications	6	3	3h00	1h30		67h30	82h30	40%	60%
	Random Signals and Stochastic Processes	4	2	1h30	1h30		45h00	55h00	40%	60%
Fundamental UE Code : UEF 1.1.2 Credits: 8 Coefficients : 4	Radiocommunication	4	2	1h30	1h30		45h00	55h00	40%	60%
	Programmable FPGA Circuits	4	2	1h30	1h30		45h00	55h00	40%	60%
Methodological UE Code : UEM 1.1 Credits: 9 Coefficients : 5	Lab : Advanced Digital Communications	2	1			1h30	22h30	27h30	100%	
	Lab : Random Signals and Stochastic Processes	2	1			1h30	22h30	27h30	100%	
	Lab : Programmable FPGA Circuits	2	1			1h30	22h30	27h30	100%	
	Object-Oriented Programming in C++	3	2	1h30		1h00	37h30	37h30	40%	60%
Discovery UE Code : UED 1.1 Credits: 2 Coefficients : 2	Elective	1	1	1h30			22h30	02h30		100%
	Elective	1	1	1h30			22h30	02h30		100%
Transversal UE Code : UET 1.1 Credits: 1 Coefficients : 1	Technical English and Terminology	1	1	1h30			22h30	02h30		100%
Semester 1 total		30	17	13h30	6h00	5h30	375h00	375h00		

Semester 2 Courses

Teaching unit	Subject	Credits	Coefficient	Weekly Hours			Semester Volume (15 semaines)	Consultation Work (15 semaines)	Assessment method	
	module			Course	TD	TP			Continous Assessment	Exam
Fundamental UE Code : UEF 1.2.1 Credits: 10 Coefficients : 5	Digital Signal Processing	6	3	3h00	1h30		67h30	82h30	40%	60%
	Antennas	4	2	1h30	1h30		45h00	55h00	40%	60%
Fundamental UE Code : UEF 1.2.2 Credits: 8 Coefficients : 4	Transmission Channels	4	2	1h30	1h30		45h00	55h00	40%	60%
	Coding and Compression	4	2	1h30	1h30		45h00	55h00	40%	60%
Methodological UE Code : UEM 1.2 Credits: 9 Coefficients : 5	Lab: Digital Signal Processing	2	1			1h30	22h30	27h30	100%	
	Lab: Antennas and Transmission Channels	2	1			1h30	22h30	27h30	100%	
	Lab: Coding and Compression	2	1			1h30	22h30	27h30	100%	
	Image Processing	3	2	1h30		1h00	37h30	37h30	40%	60%
Discovery UE Code : UED 1.2 Credits: 2 Coefficients : 2	Elective	1	1	1h30			22h30	02h30		100%
	Elective	1	1	1h30			22h30	02h30		100%
Transversal UE Code : UET 1.2 Credits: 1 Coefficients : 1	Ethics, Professional Conduct, and Intellectual Property	1	1	1h30			22h30	02h30		100%
Semester 2 total		30	17	13h30	6h00	5h30	375h00	375h00		

Semester 3 Courses

Teaching unit	Subject	Credits	Coefficient	Weekly Hours			Semester Volume (15 semaines)	Consultation Work (15 semaines)	Assessment method	
	module			Course	TD	TP			Continous Assessment	Exam
Fundamental UE Code : UEF 2.1.1 Credits: 10 Coefficients : 5	Wireless and Mobile Networks	6	3	3h00	1h30		67h30	82h30	40%	60%
	Optical Communications	4	2	1h30	1h30		45h00	55h00	40%	60%
Fundamental UE Code : UEF 2.1.2 Credits: 8 Coefficients : 4	Multimedia Technology and Protocols	4	2	1h30	1h30		45h00	55h00	40%	60%
	RF and Microwave Devices (Passive/Active)	4	2	1h30	1h30		45h00	55h00	40%	60%
UE Méthodologique Code : UEM 2.1 Credits: 9 Coefficients : 5	Lab: Wireless and Mobile Networks	2	1			1h30	22h30	27h30	100%	
	Lab: Optical Communications	2	1			1h30	22h30	27h30	100%	
	Lab: Multimedia Technology and Protocols	2	1			1h30	22h30	27h30	100%	
	Digital Television	3	2	1h30		1h00	37h30	37h30	40%	60%
UE Découverte Code : UED 2.1 Credits: 2 Coefficients : 2	Elective	1	1	1h30			22h30	02h30		100%
	Elective	1	1	1h30			22h30	02h30		100%
UE Transversale Code : UET 2.1 Credits: 1 Coefficients : 1	Literature Review and Thesis Design	1	1	1h30			22h30	02h30		100%
Semester 3 total		30	17	13h30	6h00	5h30	375h00	375h00		

Discovery UE (S1, S2, and S3)**Selected Subjects:**

1. Electromagnetic Compatibility (Subject chosen for Semester 1)
2. Standards and Protocols (Subject chosen for Semester 1)
3. Embedded Systems and Telecommunications (Subject chosen for Semester 2)
4. Radar Techniques (Subject chosen for Semester 2)
5. Space Telecommunications (Subject chosen for Semester 3)
6. Radionavigation Systems (Subject chosen for Semester 3)

Freely Chosen Subjects:

7. Linux Systems
8. Operator Networks
9. Satellite Networks
10. Wireless Sensor Networks
11. Field Networks
12. Emerging Areas of Optical Telecommunications
13. Installation and Maintenance of Optical Fibers
14. Radio Engineering
15. VSAT Technology
16. Propagation of Acoustic Microwaves in Piezoelectric Solids
17. RF and Microwave Measurements
18. Portable Micro-Antennas
19. Emerging Telecommunication Systems
20. Theoretical Physics of Optical and Microwave Analogies
21. Biological Effects of Electromagnetic Waves (Bioelectromagnetism)
22. Routing and Access Networks
23. CAD of Telecom Circuits
24. Characterization of RF Devices
25. Web Programming
26. Others...

Semester 4

Internship at a company, culminating in a thesis and an oral defence.

	VHS	Coeff	Credits
Personal Work	550	09	18
Internship in a Company	100	04	06
Seminars	50	02	03
Other (Supervision)	50	02	03
Total for Semester 4	750	17	30

This table is provided for reference only

Evaluation of the Master's Final Year Project

- Scientific Value (Assessment by the jury) /6
- Thesis Writing (Assessment by the jury) /4
- Presentation and Response to Questions (Assessment by the jury) /4
- Supervisor's Evaluation /3
- Internship Report Presentation (Assessment by the jury) /3