



Department of New and Renewable Energies
educational subjects with units for 2022-2023

1st Stage

1 st course			2 nd course		
no	Subject	Units	no	Subject	Units
1	Gen. Chemistry1	4	1	Gen. Chemistry 2	4
2	Fundamental of Computer Science	3	2	Fundamental of Electricity	4
3	Environmental pollution	2	3	Geology	3
4	Gen. Physics 1	4	4	Gen. Physics Optics 2	3
5	Calculus 1	3	5	Calculus 2	3
6	Principle of renewable energies	2	6	Computer Programming	3
7	Human Rights	2	7	Democracy	2
8	Arabic	2	8	English 1	2
		22			24

2nd Stage

1 st course			2 nd course		
no	Subject	Units	no	Subject	Units
1	Analog Electronics	4	1	Organic Chemistry	4
2	Geothermal Energy	3	2	Material Science	4
3	Inorganic Chemistry	3	3	Digital Electronics	4
4	Mathematic	3	4	Static	3
5	Organic Chemistry	4	5	industrial chemistry	3
6	Thermodynamic	4	6	Metrology	3
				mat lab	2
		21			23



3rd Stage

1 st course			2 nd course		
no	Subject	Units	no	Subject	Units
1	Mathematical Modeling	3	1	Advance Solar Cell	3
2	Electronic Measurements and Control	4	2	Energy Economics	2
3	Energy Sources	3	3	Energy Storage	4
4	Environment Pollution	3	4	Petroleum Chemistry	4
5	Hydrology	2	5	Wind Energy	4
6	Solar Cell	4	6	Occupational safety	2
		19			17

4th Stage

1 st course			2 nd course		
no	Subject	Units	no	Subject	Units
1	Biomass Energy	3	1	Networking	3
2	Hydropower	3	2	Nuclear Energy	3
3	Nanomaterials	4	3	Large Solar Energy Systems	3
4	Sun radiation	2	4	Nanoenergy	4
5	Small Solar Energy Systems	4	5	Photo Chemistry	3
6	Healthy Culture	2	6	Selective Course	2
7	Graduation project	2	7	Professional Ethics	2
		20			20