## **Department: physics**

Curricula for the bachelor's degree for four years and two semesters, according to the following table

First year					
First semester					
	Subjects	Unit	Number of hours		
1	Electricity	2	2( Theory)	1	
2	Mechanics I	2	2( Theory)	2	
3	Modern Physics I	2	2( Theory)	3	
4	Mathematics I	2	2( Theory)	4	
5	Programing Language I	1	2( Theory),2 Practical	5	
6	General chemistry	2	2( Theory)	6	
7	Human rights	1	2( Theory)	7	
8	Arabic Language 1	2	2( Theory)	8	
	Total Number of Units	14			

Second semester					
Subjects		Unit	Number of hours		
1	Magnetism	2	2( Theory)		
2	Mechanics II	2	2( Theory)		
3	Modern Physics II	2	2( Theory)		
4	Mathematics II	2	2( Theory)		
5	Programing Language II	1	2( Theory and 2 Practical)		
6	Astronomy	2	2( Theory)		
7	Freedom & democracy	1	2( Theory)		
8	English Language	2	2( Theory)		
	Total Number of Units	14			

S	eco	nd	yea	ar

First semester					
	Subjects	Unit	Number of hours		
1	Thermodynamics I	3	2( Theory)		
2	Electronics I	2	2( Theory)		
3	Mathematics III	2	2( Theory)		
4	Numerical Analysis I	2	2( Theory), 2 Practical		
5	Analytical Mechanics I	2	2( Theory)		
6	English Language	2	2( Theory),		
7	Programing language I (Matlab)	2	2( Theory), 2 Practical		
8	Practical Physics I	3			
	Total Number of Units	18			

## Second semester

	Subjects	Unit	Number of hours
1	Thermodynamics II	3	2( Theory)
2	Electronics II	2	2( Theory)
3	Quantum Mechanics I	2	2( Theory)
4	Mathematics IV	2	2( Theory)
5	Analytical Mechanics II	2	2( Theory)
6	Molecular physics	2	2( Theory)
7	Programing Language II (Matlab)	2	2( Theory), 2 Practical
8	Practical Physics II	3	
	Total Number of Units	18	

			1	Third year
	Subjects	Unit	Number of hours	
1	Quantum Mechanics II	2	2( Theory)	
2	optics I	3	3 ( Theory)	
3	Laser Physics I	2	2( Theory)	
4	English Language	2	2( Theory)	
5	Mathematical Physics I	3	3 ( Theory)	
6	Material science	2	2( Theory)	
7	Semiconductors I	2	2( Theory)	
8	Practical Physics I	3		
	Total Number of Units	18		

	Second semester				
	Subjects	Unit	Number of hours		
1	Quantum Mechanics III	2	2( Theory)		
2	optics II	3	3 ( Theory)		
3	Laser Physics II	2	2( Theory)		
4	Modeling& Simulation	2	2( Theory)		
5	Mathematical Physics II	3	3 ( Theory)		
6	Statistical Mechanics	2	2( Theory)		
7	Semiconductors II	2	2( Theory)		
8	Practical Physics II	3			
	Total Number of Units	18			

	Fourth year						
First semester							
	Subjects	Unit	Number of hours				
1	Nuclear Physics I	3	2( Theory)		1		
2	Solid State Physics I	3	2( Theory)		2		
3	Electromagnetic theory I	2	2( Theory)		3		
4	Nanoscience I	2	2( Theory)		4		
5	English Language	2	2( Theory)		5		
6	Meteorology	2	2( Theory)		6		
7	Nuclear spectrum	2	1( Theory)		7		
8	Practical Physics I	3	4 (2 Nuclear Physics & 2 Solid State Physics)		8		
	Total Number of Units	19					

	second semester					
	Subjects	Unit	Number of hours			
1	Nuclear Physics II	3	2( Theory)			
2	Solid State Physics II	3	2( Theory)			
3	Electromagnetic theory II	2	2( Theory)			
4	Nanoscience II	2	2( Theory)			
5	Medical physics	2	2( Theory)			
6	High Energy physics	2	2( Theory)			
7	Research Project	2	1( Theory)			
8	Practical Physics II	3	4 (2 Nuclear Physics, 2 Solid State Physics			
	Total Number of Units	19				