

Undergraduate Study Plan for Physics Department

Table 1 :- Course plan for physics

Requirements	No. of courses	Credit hours	Actual hours
University requirements	13	29	29
College requirements	6	20	20
Dept- requirements	28	93	93
Total	47	142	142

2- Compulsory requirements:

A – Table 2:- University requirements are 29 credit hours, as follow

Course No.	Course Code	Course name	Credit hours
601101	Slm	Islamic culture (1)	2 (2+0+0)
601201	Slm	Islamic culture (2)	2 (2+0+0)
601301	Slm	Islamic culture (3)	3 (3+0+0)
601401	Slm	Islamic culture (4)	2 (2+0+0)
605101	Slm	Holly Quran (1)	2 (2+0+0)
605201	Slm	Holly Quran (2)	2 (2+0+0)
605301	Slm	Holly Quran (3)	2 (2+0+0)
605401	Slm	Holly Quran (4)	2 (2+0+0)
50101	Arb	Arabic language	2 (2+0+0)
102101		Profit history	2 (2+0+0)
705102	Ngm	English language skills(1)	3(3+0+0)
705103	Ngm	English language skills(2)	3(3+0+0)
705101	Ngm	English language	2 (2+0+0)
Total :-			29Hr

B- Table 3:- Compulsory courses from college science

Course No.	Course Code	Course name	Credit hours
402101	chem	Chemistry 101	4(3+1+0)
404101	math	principle in Math 101	4(4+0+0)
404102	math	principle in Math 102	4(4+0+0)
404140	math	Linear algebra	4(4+0+0)
404101	biol	Plant-biology	2(2+0+0)
404102	biol	Animal-biology	2(2+0+0)
Total			20Hr

C- Table 4:- Department's compulsory requirements (93 credit hours):

	Course No.	Course code	Course name	Credit hours
1	403101	phys	General physics101	4(3+1+0)
2	403121	phys	Electricity and magnetism	4(3+1+0)
3	403102	phys	General physics102	4(3+1+0)
4	403240	phys	Method in theatrical physics (1)	3(3+0+0)
5	403242	phys	Method in theatrical physics (2)	3(3+0+0)
6	403346	phys	Method in theatrical physics (3)	2(2+0+0)
7	403241	phys	Classical mechanics (1)	4(4+0+0)
8	403245	phys	Classical mechanics (2)	3(3+0+0)
9	403332	phys	Electromagnetism (1)	3(3+0+0)
10	403231	phys	Optics	4(3+1+0)
11	403285	phys	Instrumentation	3(3+0+0)
12	403212	phys	Thermodynamic	3(3+0+0)
13	403342	phys	Electromagnetism (2)	3(3+0+0)
14	403344	phys	Quantum mechanics(1)	4(4+0+0)
15	403213	phys	Statistical thermodynamic	3(3+0+0)

16	403361	phys	Nuclear physic 1	4(3+1+0)
17	403345	phys	Quantum mechanics(2)	3(2+0+1)
18	403461	phys	Nuclear physics 2	3(2+1+0)
19	403423	phys	Electronics	4(4+0+0)
20	403371	phys	Solid state physics (1)	3(3+0+0)
21	403383	phys	computing	2(0+2+0)
22	403463	phys	Nuclear Technology	2(0+2+0)
23	403472	phys	Solid state physics (2)	2(0+2+0)
24	403432	Phys	advanced Optics	3(3+0+0)
25	403253	Phys	Atomic physics (1)	4(3+1+0)
26	403471	Phys	Semi-conductors physics	3(3+0+0)
27	403462	Phys	Radiation Physics	3(3+0+0)
28	403382	Phys	Workshop	2(0+2+0)
29	403493	phys	Research Project	5(5+0+0)

First level

Course Name	Course Code	Prerequisite
General Physics 1	403101-4	
General Chemistry 1	402101-4	
Differentiation and Integration 1	404101-4	
English Language	705101-2	
Islamic Culture 1	601101-2	
Quran 1	605101-2	
Total	18 Hr	

Second level

Course name	Course Code	Prerequisite
General Physics 2	403102-4	404101+403101
Electricity and Magnetism	403121-4	404101+403101
Differentiation and Integration 2	404102-4	404101
Algebra Fundamental	404140-4	404101
General Biology Plant	401101-2	
General Biology Animal	401102-2	
Total	20 Hr	

Third level

Course Name	Course Code	Prerequisite
Heat and Thermodynamic	403212-3	404102+402102
Optics	403231-4	404102+402102
Theoretical Physics 1	403240-3	404102
Classical Mechanics 1	403241-4	404102+402102
Measurements	403285-3	403121
Arabic Language	501101-2	
Total	19 Hr	

Fourth level

Course Name	Course Code	Prerequisite
Statistical Thermodynamic	403213-3	403212
Theoretical Physics 2	403242-3	403240
Classical Mechanics 2	403245-3	403241
Atomic physics	403253-4	403240+40231
Communication in English 1	705102-3	705101
Islamic Culture 2	601201-2	601101
Total	19 Hr	

Fifth level

Course Name	Course Code	Prerequisite
Electromagnetism 1	403332-3	403242+403285
Quantum Mechanics 1	403344-4	403252+403242
Theoretical Physics 3	403346-2	403242
Solid Stat 1	403371-3	403253
Islamic Culture 3	601301-3	601201
Quran 2	605201-2	605101
Total	17 Hr	

Six level

Course Name	Course Code	Prerequisite
Electromagnetism	403342-3	403332
Quantum Mechanics 2	403345-3	403344
Nuclear Physics 1	403361-4	403344+403253
Workshop	403382-2	403381
Computer	403383-2	403242
Communication in English 2	705103-3	705102
Islamic Culture 4	601401-2	601301
Total	19 Hr	

Seven level

Course Name	Course Code	Prerequisite
Electronics	403423-4	403371
Advanced Optics	403432-3	403346+403231
Radiation Physics	403462-3	403361
Semiconductor	403471-3	403371
Project	403493-5	Agree department
Quran 3	605301-2	605201
Alsera Alnabaweia	102101-2	
Total	22 Hr	

Eights level

Course Name	Course Code	Prerequisite
Nuclear Physics 2	403461-3	403371
Nuclear Technology	403463-2	403346+403231
Solid State 2	403372-2	403361
Quran 4	605401-2	403371
Total	9 Hr	

Workloads

1 st year			
1 st Semester		2 nd Semester	
Credit points	Workload	Credit points	Workload
4	180	4	180
4	180	4	180
4	180	4	180
2	90	4	180
2	90	2	90
2	90	2	90
18	810	20	900

2 nd year			
1 st Semester		2 nd Semester	
Credit points	Workload	Credit points	Workload
3	135	3	135
4	180	3	135
3	135	3	135
4	180	4	180
3	135	3	135
2	90	2	90
19	855	18	810

3 th year			
1 st Semester		2 nd Semester	
Credit points	Workload	Credit points	Workload
3	135	3	135
4	180	3	135

2	90	4	180
3	135	2	90
3	135	2	90
2	90	3	135
		2	90
17	765	19	855

4th year			
1st Semester		2nd Semester	
Credit points	Workload	Credit points	Workload
4	180	3	135
3	135	2	90
3	135	2	90
3	135	2	90
5	225		
2	90		
2	90		
22	990	8	405