

**COMSATS Institute of Information Technology**  
Principal Seat, Islamabad.  
Registrar Office

No: CIIT-Reg/Notif-310/11/1043

July 1<sup>st</sup>, 2011Notification

On the recommendations of Board of Studies for Physics in its 11<sup>th</sup> meeting, the Board of Faculty of Science in its 10<sup>th</sup> meeting, held on June 14, 2011, approved the following Scheme of Studies for Bachelor of Science in Physics program, effective for session Spring 2008 at CIIT:

Year 1

Semester 1	Course Code	Course Title	Credit Hours	Pre-Requisite(s)
	PHY101	Mechanics of Particles	3(3, 0)	
	HUM100	English Comprehension and Composition	3(3, 0)	
	MTH101	Calculus-I Or Calculus I	3(3, 0)	
	CSC103 Or CSC101	Introduction to Computers and Programming Or Introduction to Computing	4(3, 1)	
		Minor-I	3(3, 0) / 4(3, 1)	
	PHY108	Physics Lab-I	1(0, 1)	
<b>Total</b>			17(15, 2) / 18(15, 3)	

Semester 2	Course Code	Course Title	Credit Hours	Pre-Requisite(s)
	PHY103	Heat and Thermodynamics	3(3, 0)	
	MTH231	Linear Algebra	3(3, 0)	
	MTH102	Calculus-II Or Calculus II	3(3, 0)	MTH101
	CSC141	Introduction to Computer Programming	4(3, 1)	CSC103 Or CSC101
		Minor-II	3(3, 0) / 4(3, 1)	
	PHY109	Physics Lab-II	1(0, 1)	
<b>Total</b>			17(15, 2) / 18(15, 3)	

Year 2

Semester 3	Course Code	Course Title	Credit Hours	Pre-Requisite(s)
	PHY222	Electric and Magnetic Fields-I	3(3, 0)	PHY101, MTH101, MTH102
	HUM103	Communication Skills	3(3, 0)	HUM100
	HUM111	Pakistan Studies	3(3, 0)	
	PHY232	Vibrations and Waves	3(3, 0)	
	MTH241	Ordinary Differential Equations	3(3, 0)	
		Minor-III	3(3, 0) / 4(3, 1)	
	PHY208	Physics Lab-III	1(0, 1)	
	Total		19(18, 1) / 20(18, 2)	

Semester 4	Course Code	Course Title	Credit Hours	Pre-Requisite(s)
	MTH343	Partial Differential Equations	3(3, 0)	MTH241
	PHY241	Classical Mechanics	3(3, 0)	PHY101
	HUM110	Islamic Studies	3(3, 0)	
	PHY223	Electric and Magnetic Fields-II	3(3, 0)	PHY222
	EEE121	Electric Circuits Analysis - I/Electric Circuit Analysis - I	3(3, 0)	PHY222
	PHY225	Modern Physics Concepts	3(3, 0)	PHY232
	PHY209	Physics Lab-IV	1(0, 1)	
	Total		19(18, 1)	

Year 3

Semester 5	Course Code	Course Title	Credit Hours	Pre-Requisite(s)
	PHY341	Relativity	3(3, 0)	PHY222
	PHY342	Quantum Mechanics-I	3(3, 0)	PHY241, PHY225
	PHY361	Mathematical Methods of Physics	3(3, 0)	MTH102, MTH343
	EEE222	Electric Circuit Analysis - II Or Electric Circuits Analysis-II	3(3, 0)	EEE121
		Minor-IV	3(3, 0) / 4(3, 1)	
	PHY352	Engineering Optics	3(3, 0)	PHY232
	PHY308	Physics Lab-V	1(0, 1)	
	Total		19(18, 1) / 20(18, 2)	



Semester 6	Course Code	Course Title	Credit Hours	Pre-Requisite(s)
	PHY362	Computational Physics	3(3, 0)	PHY361
	PHY343	Quantum Mechanics-II	3(3, 0)	PHY342
	PHY363	Theory of Errors and Research Methodology	3(3, 0)	
	PHY345	Statistical Mechanics	3(3, 0)	PHY103
	PHY354	Fundamental Properties of Solids	3(3, 0)	
	PHY309	Physics Lab-VI	1(0, 1)	
	Total		16(15,1)	

Year 4

Semester 7	Course Code	Course Title	Credit Hours	Pre-Requisite(s)
	PHY441	Electronic Properties of Solids	3(3, 0)	PHY354
	PHY422	Electromagnetic Theory and Applications	3(3, 0)	PHY223, PHY232
	PHY433	Nuclear Physics	3(3, 0)	PHY342
		Elective-I	3(3, 0)	
	PHY499	Project-I	3(0, 3)	
	Total		15(12, 3)	

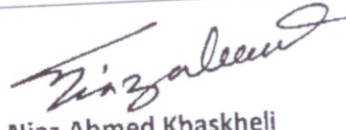
Semester 8	Course Code	Course Title	Credit Hours	Pre-Requisite(s)
		Elective-II	3(3, 0)	
		Elective-III	3(3, 0)	
	PHY499	Project-II	6(0, 6)	
	Total		12(6, 6)	

Grand Total: 134-138 Credit HoursElective Courses:-

PHY463	Introduction to Material Science and Engineering	3(3, 0)	
PHY471	High Energy Physics-I	3(3, 0)	
PHY462	Introduction to Nanosciences & Technology	3(3, 0)	
PHY425	Microelectronics	3(3, 0)	
PHY454	Optoelectronics	3(3, 0)	

## Minors Courses:

MGT100	Introduction to Business	3(3, 0)	
MGT101	Introduction to Management	3(3, 0)	
HUM432	Arabic	3(3, 0)	
HUM430	French	3(3, 0)	
MET201	Satellite Remote Sensing	3(3, 0)	
ENV101	Fundamentals of Environmental Sciences	3(3, 0)	
EEE231	Electronics-I	4(3, 1)	
HUM220	Introduction to Psychology	3(3, 0)	
HUM320	Introduction to Sociology	3(3, 0)	
HUM221	International Relations	3(3, 0)	
PHY455	Introduction to Biophysics	3(3, 0)	
BSC100	Introduction to Biosciences	3(3, 0)	
MET101	Introduction to Meteorology	3(3, 0)	
ECO110	Fundamentals of Economics	3(3, 0)	
Any other subject; subject to availability			

  
 Niaz Ahmed Khaskheli  
 Additional Registrar

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## CC:

1. Registrar, CIIT
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