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

No: CIIT-Reg/Notif39/11/1042_

July 1st, 2011

Notification

On the recommendations of Board of Studies for Physics in its 11th meeting, the Board of Faculty of Science in its 10th meeting, held on June 14, 2011, approved the following Scheme of Studies for Bachelor of Science in Physics program, effective for session Fall 2007 at CIIT:

Year 1

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

	Course Code	Course Title	Credit Hours	Pre-Requisite(s)
	PHY103	Heat and Thermodynamics	3(3, 0)	
2	MTH231	Linear Algebra	3(3, 0)	
ester	MTH102	Calculus-II	3(3, 0)	MTH101
Sem	PHY103 Hea MTH231 Line MTH102 Call CSC241 Obj	Object Oriented Programming	4(3, 1)	CSC103
0,		Minor-II	3(3, 0) / 4(3, 1)	
	PHY109	Physics Lab-II	1(0, 1)	11
		Total	17(15, 2)/ 18(15, 3)	8 9

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Year 2

	Course Code	Course Title	Credit Hours	Pre- Requisite(s)
	PHY222	Electric and Magnetic Fields-I	3(3, 0)	PHY101
	Course Code PHY222 Ele HUM103 Co HUM111 Pa PHY232 Vil MTH241 Or	Communication Skills	3(3, 0)	HUM100
Semester 3	HUM111	Pakistan Studies	3(3, 0)	
iest	PHY222 Electric and Magnetic Fields-I HUM103 Communication Skills HUM111 Pakistan Studies PHY232 Vibrations and Waves MTH241 Ordinary Differential Equations Minor-III	Vibrations and Waves	3(3,0)	
Serr	MTH241	HY222 Electric and Magnetic Fields-I JM103 Communication Skills JM111 Pakistan Studies HY232 Vibrations and Waves TH241 Ordinary Differential Equations Minor-III HY208 Physics Lab-III	3(3, 0)	
		Minor-III	3(3, 0) / 4(3, 1)	1
	PHY222 Electric and Magnetic Fields-I HUM103 Communication Skills HUM111 Pakistan Studies PHY232 Vibrations and Waves MTH241 Ordinary Differential Equations Minor-III PHY208 Physics Lab-III	1(0, 1)		
		Total	19(18, 1)/ 20(18, 2)	

94	Course Code	Course Title	Credit Hours	Pre-Requisite(s)
¥	MTH343	Partial Differential Equations	3(3, 0)	MTH241
		3(3, 0)	PHY101	
er 4	HUM110	PHY241 Classical Mechanics HUM110 Islamic Studies PHY223 Electric and Magnetic Fields-II EEE121 Electric Circuits Analysis - I PHY225 Modern Physics Concepts PHY209 Physics Lab-IV	3(3, 0)	
Semester	PHY223		3(3, 0)	PHY222
Sem	EEE121	Electric Circuits Analysis - I	3(3, 0)	PHY222
	PHY225	Modern Physics Concepts	3(3,0)	PHY232
	PHY209	H343 Partial Differential Equations Y241 Classical Mechanics M110 Islamic Studies Y223 Electric and Magnetic Fields-II E121 Electric Circuits Analysis - I Y225 Modern Physics Concepts Y209 Physics Lab-IV	1(0, 1)	
		Total	19(18, 1)	

Year 3

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

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	Course Code	Course Title	Credit Hours	Pre-Requisite(s)
	PHY362	Computational Physics	3(3, 0)	PHY361
*	PHY343	Quantum Mechanics-II	3(3, 0)	PHY342
sster 6	PHY351 Or PHY363	Theory of Errors and Research Methodology	3(3, 0)	
semest	PHY345	Statistical Mechanics	3(3, 0)	PHY103
Ā	PHY354	Fundamental Properties of Solids	3(3, 0)	
	PHY309	Physics Lab-VI	1(0, 1)	
	PHY362 Computational Physics PHY343 Quantum Mechanics-II PHY351 Or Theory of Errors and Research Methodology PHY363 Methodology PHY345 Statistical Mechanics PHY354 Fundamental Properties of Solids	16(15, 1)		

Year 4

	Course Code	Course Title	Credit Hours	Pre-Requisite(s)
	PHY441	PHY441 Electronic Properties of Solids Electromagnetic Theory and Applications PHY433 Nuclear Physics Elective-I	3(3, 0)	PHY354
ter /	PHY441 Electronic Properties of Solids PHY422 Electromagnetic Theory and Applications PHY433 Nuclear Physics Elective-I PHY499 Project-I	3(3,0)	PHY223, PHY232	
Semester	PHY433	Nuclear Physics	3(3,0)	PHY342
Ser	1	Elective-I	3(3, 0)	
	PHY499 /	Project-I	3(0, 3)	
		Total	15(12, 3)	

	· Course Code	Course Title	Credit Hours	Pre-Requisite(s)
XX A	(Elective-II	3(3,0)	
Semester	J -	Elective-III	3(3, 0)	
em	PHY499	Project-II	6(0, 6)	
W 2:		Total	12(6, 6)	

Grand Total: 134-138 Credit Hours

Elective 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)	

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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)

Niaz Ahmed Khaskheli Additional Registrar

Distribution:

- 1. All Campus Directors, CIIT.
- 2. Dean Faculty of Science, CIIT.
- 3. Chairman, Department of Physics, CIIT.
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- 6. Controller of Examinations, CIT.
- 7. Additional Registrar (Academics) CIIT, Islamabad Campus.
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CC:

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- 2. PS to Rector