

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

No: CIIT-Reg/Notif-~~662~~/12/986

July 3, 2012

NOTIFICATION

Scheme of Studies of Doctor of Philosophy (PhD) in Physics

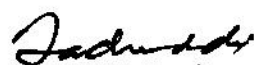
It is hereby notified that the Academic Council in its 13th meeting held on June 04, 2012 approved the following scheme studies of Doctor of Philosophy (PhD) in Physics program w.e.f Fall 2012 at CIIT system:

	<u>Minimum No. of course</u>	<u>Minimum No. of Credit hours</u>
1. PhD course work		
1) Core courses (list attached)	01	03
2) Elective courses (list attached)	05	15
Total credit hours of course work		18
2. PhD Research Thesis		09

Note:

All Rules and Regulations approved by BASAR from time to time shall be applicable

This issue with approval of the Competent Authority.


Nadeem Uddin Qureshi
Additional Registrar

Encl: (3 pages in total including this page)

Distribution:

1. Dean Faculty of Science, CIIT.
2. Chairman, Department of Physics, CIIT.
3. Incharge, CIIT Islamabad Campus.
4. Incharge Academics, CIIT Campuses.
5. All HoDs Department of Physics, CIIT, Campuses.
6. Controller of Examinations, CIIT.
7. Incharge Examinations, CIIT Campuses.

CC:

1. PS to Rector
2. PA to Registrar

List of Core course

Course Code	Course Title	Credit Hours	Pre-requisite(s)
PHY612	Advanced Statistical Mechanics	3(3, 0)	

Thesis

Course Code	Course Title	Credit Hours
PHY900	Thesis	9

List of Elective courses

Course Code	Course Title	Credit Hours	Pre-requisite(s)
PHY602	Quantum Computation II	3(3, 0)	PHY501
PHY604	Advanced Quantum Physics	3(3, 0)	
PHY606	Quantum Chromodynamics	3(3, 0)	PHY510
PHY609	Advanced Electromagnetic Fields and Waves	3(3, 0)	
PHY610	Integrated Optics	3(3, 0)	PHY532
PHY611	Quantum Field Theory II	3(3, 0)	PHY510
PHY617	Gravitation and Cosmology	3(3, 0)	PHY514
PHY618	Particle Physics II	3(3, 0)	PHY517
PHY620	Condensed Matter Theory	3(3, 0)	PHY604
PHY621	Materials Science II	3(3, 0)	PHY520
PHY622	Modern Semiconductor Structures	3(3, 0)	PHY604 OR PHY531
PHY626	Thermal Transport Mechanism	3(3, 0)	PHY604
PHY628	Quantum Optics II	3(3, 0)	PHY527
PHY640	Advances in Thin Film Technology	3(3, 0)	PHY520
PHY650	Advanced Topics in Magnetism	3(3, 0)	PHY550
PHY662	Ultrashort Lasers and Optics	3(3, 0)	PHY532
PHY663	Fourier Optics	3(3, 0)	PHY503 OR Basic course on electromagnetic theory or equivalent
PHY664	Nonlinear Optics	3(3, 0)	PHY503 OR Basic course on electromagnetic theory or equivalent
PHY665	Photonic Mesoscopic Systems	3(3, 0)	PHY604 or PHY532
PHY666	Low Temperature Plasma	3(3, 0)	PHY540

PHY705	Finite Temperature and Density Field Theory for High Energy	3(3, 0)	PHY510
PHY706	Particle Collisions	3(3, 0)	PHY517 OR PHY604 OR PHY570
PHY707	Physics of Early Universe	3(3, 0)	PHY617
PHY708	Neutrino Physics	3(3, 0)	PHY517
PHY709	Supersymmetry	3(3, 0)	PHY510 OR PHY517
PHY710	Kinematics of Nuclear Reactions of High Energies	3(3, 0)	PHY517 OR PHY604 OR PHY570
PHY719	Quark Gluon Plasma	3(3, 0)	PHY510 OR PHY517
PHY720	Special Topics in Quantum Optics I	3(3, 0)	PHY527
PHY721	Special Topics in Quantum Optics II	3(3, 0)	PHY527

Included.