PHYSICS

Those students who have completed Physics as a principal subject at the 2000 level shall be eligible for selection to an Honours Degree in Physics at the end of the second year subjected to their fulfilment of compulsory requirements for the Honours Degree in Physics.

1000 LEVEL - PHYSICS					
Course Code	**Course Title**	**No. of Credits**	**Pre-requisites**	**Compulsory**	
				Hons.	**B.Sc.**
PHY1103	General Physics I	3		√	√
PHY1203	General Physics II	3		√	√
PHY1911	Elementary Physics Laboratory I	1		√	√
PHY1921	Elementary Physics Laboratory II	1		√	√
Total		**08**		**08**	**08**

2000 LEVEL – PHYSICS					
Course Code	**Course Title**	**No. of Credits**	**Pre-requisites**	**Compulsory**	
				Hons.	**B.Sc.**
PHY2102	Mechanics and Fluid Dynamics	2	PHY1103	√	√
PHY2112	Vibrations and Waves	2			
PHY2302	Introductory Quantum Mechanics and Atomic Physics	2	PHY1203	√	√
PHY2402	Statistical Physics & Thermodynamics	2	PHY1103	√	√
PHY2812	Introductory Astronomy	2			
PHY2822	Medical Physics	2			
PHY2842	Energy and the Environment	2			
PHY2852	Circuit Theory & Introductory Electronics	2		√	
PHY2911	General Physics Laboratory I	1	PHY1911, PHY1921	√	√
PHY2921	General Physics Laboratory II	1	PHY1911, PHY1921	√	√
PHY2931	Electronic Laboratory I	1	PHY2852	√	
Total		**19**		**11**	**08**

3000 LEVEL – PHYSICS					
Course Code	**Course Title**	**No. of Credits**	**Pre-requisites**	**Compulsory**	
				Hons.	**B.Sc.**
PHY3102	Classical Mechanics	2	PHY2102	√	
PHY3112	Special Relativity	2		√	

PHY3202	EM Waves and Communication	2	PHY1203	√	√
PHY3212	Physical Optics and Optical Instruments	2	PHY1103	√	√
PHY3302	Quantum Mechanics I	2	PHY2302	√	
PHY3502	Nuclear Physics I	2		√	√
PHY3512	Elementary Particle Physics	2			
PHY3602	Solid State Physics I	2		√	√
PHY3612	Semiconductor Physics and Devices	2			
PHY3622	Structures and Properties of Materials	2			
PHY3703	Mathematical Methods in Physics	3		√	
PHY3712	Computational Physics	2			
PHY3812	Astrophysics	2			
PHY3822	Biophysics	2			
PHY3832	Health Physics	2			
PHY3842	Physics of Atmosphere, Weather and Climate	2			
PHY3852	Advanced Electronics	2	PHY2852		
PHY3862	Experimental Techniques and Material Characterization	2			
PHY3872	Introductory Nanoscience	2			
PHY3911	General Physics Laboratory III	1	PHY1911, PHY1921	√	√
PHY3921	Applied Physics Laboratory	1	PHY3911		
PHY3932	Advanced Physics Laboratory I	2	PHY2911, PHY2921	√	
PHY3942	Advanced Physics Laboratory II	2	PHY2911, PHY2921	√	
PHY3951	Electronics Laboratory II	1	PHY2931		
PHY3992	Scientific Writing and Seminar	2		√	
Total		**48**		**24**	**09**

4000 LEVEL – PHYSICS					
Course Code	**Course Title**	**No. of Credits**	**Pre-requisites**	**Compulsory**	
				Hons.	
PHY4112	General Relativity	2			
PHY4122	Introduction to Cosmology	2	PHY4112		
PHY4202	Electromagnetic Theory	2	PHY3202	√	
PHY4302	Quantum Mechanics II	2	PHY3302	√	
PHY4312	Quantum Mechanics III	2	PHY4302		
PHY4402	Statistical Physics	2	PHY2402	√	

PHY4502	Nuclear Physics II	2	PHY3502	*	
PHY4512	Nuclear Reactor Physics	2	PHY3502		
PHY4522	Radiation Detection and Measurement	2			
PHY4602	Solid State Physics II	2	PHY3602	*	
PHY4622	Magnetic Materials and Superconducting Phenomena	2	PHY2402		
PHY4632	Ion Conducting Materials and Devices	2			
PHY4642	Polymer Physics	2			
PHY4852	Data Acquisition and Signal Processing	2	PHY3852		
PHY4872	Nanophysics	2	PHY3872/ CHE3723		
PHY4912	Advanced Physics Laboratory III	2	PHY3942	√	
PHY4922	Investigatory Physics Laboratory	2		√	
PHY4996	Research Project	6		√	
SCI4003	Industrial Training	3			
Total		**43**		**18**	