

PHYSICS – MAJOR (SCIENCE) – BACHELOR OF SCIENCE (HONOURS)

Plans of study for students who were admitted to a Physics Plan after May 2018

PHYS-M-BSH

Subject: Administered by the Department of Physics, Engineering Physics and Astronomy.

Plan: Consists of 72.0 units as described below.

Program: The Plan, alone, or in combination with a Minor in another subject, and with sufficient electives to total 120.0 units, will lead to a Bachelor of Science (Honours) Degree.

Code	Title	Units
1. Core		
A. Complete the following:		
PHYS 104	Fundamental Physics	6.00
	or PHYS 106 General Physics	
B. Complete the following:		
PHYS 206	Dynamics	3.00
PHYS 212	Vibrations and Waves	3.00
PHYS 213	Computational Methods in Physics	3.00
PHYS 239	Electromagnetism	3.00
PHYS 242	Relativity and Quanta	3.00
PHYS 250	Foundations of Experimental Physics	3.00
C. Complete the following		
MATH 221	Vector Calculus	3.00
	or MATH 280 Advanced Calculus	
D. Select 3.00 units from the following:		
MATH 225	Ordinary Differential Equations	3.00
MATH 231	Differential Equations	3.00
E. Select 15 units from the following:		
PHYS 344	Introduction to Quantum Mechanics	15.00
PHYS 345	Quantum Physics of Atoms, Nuclei and Particles	
PHYS 350	General Laboratory	
PHYS 372	Thermodynamics	
F. Select 6.00 units from the following:		
PHYS 316	Methods in Mathematical Physics I	6.00
& PHYS 317	and Methods in Mathematical Physics II	
MATH 228	Complex Analysis	
& MATH 338	and Fourier Methods for Boundary Value Problems	
G. Complete the following:		
PHYS 432	Electromagnetic Theory	3.00
2. Option		
A. Select 6.00 units from the following:		
		6.00

PHYS 315	Physical Processes in Astrophysics	
	PHYS at the 400 level or above	
3. Supporting		
A. Complete the following:		
MATH 111	Linear Algebra	6.00
	or MATH 110 Linear Algebra	
B. Select 6.00 units from the following:		
MATH 120	Differential and Integral Calculus	6.00
MATH 121	Differential and Integral Calculus	
MATH 123	Differential and Integral Calculus I	
MATH 124	Differential and Integral Calculus II	
Electives		
Elective Courses		48.00
Total Units		120.00

4. Note

A. A maximum of 6.0 units from courses offered by other Faculties and Schools may be counted toward the program and/or Plan Requirements. This includes courses in BMED, COMM, GLPH, LAW, NURS and courses in the Faculty of Engineering and Applied Science.