

Faculty	Natural Sciences			
Home Department	Physics and Astronomy			
Module Topic	Introduction Module in Astrophysics			
Generic Module Name	Physics 327			
Alpha-numeric Code	PHY327			
NQF Level	7			
NQF Credit Value	30			
Duration	Semester			
Proposed semester to be offered.	Second Semester			
Programmes in which the module will be offered	BSc (Physical Science) (3233, 3120) BSc (Computer Science) (3221, 3023)			
Year level	3			
Main Outcomes	<p>On completion of this module students should be able to:</p> <ul style="list-style-type: none"> • Explain the physics and mathematics of important ideas in astronomy. • Operate a telescope. • Analyse data from telescopes. • Use computational techniques to model data and simulate astronomical objects. • Explain advanced astronomical ideas to a wide audience. 			
Main Content	Analysing astronomical spectra and photometry; Concepts in general relativity applied to cosmology and black holes; Astrophysical fluids; Nucleosynthesis; Technology and science of SA's astronomical facilities; Communicating advanced astronomical ideas: tourism, the media and science education			
Pre-requisite modules	(MAT105 or MAT103 or MAM152) and (PHY217 or PHY212)			
Co-requisite modules	None			
Prohibited module Combination	None except from timetable clash groups			
Breakdown of Learning Time	Hours	Time-table Requirement per week		Other teaching modes that does not require time-table
Contact with lecturer / tutor:	42	Lectures p.w.	3	
Assignments & tasks:	14	Practicals p.w.	4	
Practicals:	56	Tutorials p.w.	1	
Assessments	6			
Selfstudy	168			
Other:	0			
Total Learning Time	300			
Method of Student Assessment	Continuous Assessment (CA): 100% Final Assessment (FA): 0%			
Assessment Module type	Continuous Assessment (CA)			