

BACHELOR OF SCIENCE IN ASTROPHYSICS

The astrophysics program is designed as an introduction to the physics behind stars, observational techniques, extragalactic astronomy, and relativity. Graduates generally move on to jobs in government, universities, the private sector, or teaching positions in middle school and high school. Others continue on to obtain a master's degree or a Ph.D.

Required Courses

Physics Requirements		(43)
PHYS 100	Intro to the Profession	2
PHYS 123	General Physics I: Mechanics	4
PHYS 221	General Physics II: Electricity and Magnetism	4
PHYS 223	General Physics III	4
PHYS 240	Computational Science	3
PHYS 301	Mathematical Methods of Physics	3
PHYS 304	Thermodynamics and Statistical Physics	3
PHYS 308	Classical Mechanics I	3
PHYS 309	Classical Mechanics II	3
PHYS 348	Modern Physics for Scientists and Engineers	3
PHYS 405	Fundamentals of Quantum Theory I	3
PHYS 413	Electromagnetism I	3
PHYS 427	Advanced Physics Laboratory I	3
PHYS 485	Physics Colloquium	1
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Astronomy Requirements		(16)
PHYS 360	Introduction to Astrophysics	3
PHYS 361	Observational Astrophysics	4
PHYS 403	Relativity	3
PHYS 460	Stellar Astrophysics	3
PHYS 461	Extragalactic Astrophysics	3
Mathematics Requirements		(18)
MATH 151	Calculus I	5
MATH 152	Calculus II	5
MATH 251	Multivariate and Vector Calculus	4
MATH 252	Introduction to Differential Equations	4
Chemistry Requirements		(8)
CHEM 124	Principles of Chemistry I with Laboratory	4
CHEM 125	Principles of Chemistry II with Laboratory	4
Computer Science Requirement		(2)
CS 105	Introduction to Computer Programming	2
Humanities and Social Science Requirements		(21)
See IIT Core Curriculum, sections B and C		21
Interprofessional Projects (IPRO)		(6)
See IIT Core Curriculum, section E		6
Free Electives		(12)
Select 12 credit hours		12
Total Credit Hours		126

Bachelor of Science in Astrophysics Curriculum

		Year 1	
Semester 1	Credit Hours	Semester 2	Credit Hours
PHYS 100	2	PHYS 221	4
PHYS 123	4	MATH 152	5
MATH 151	5	CHEM 125	4
CHEM 124	4	CS 105	2
		15	15
		Year 2	
Semester 1	Credit Hours	Semester 2	Credit Hours
PHYS 223	4	PHYS 240	3
MATH 251	4	PHYS 348	3
Humanities or Social Sciences Elective	3	MATH 252	4
Humanities 200-level Course	3	PHYS 360	3
Social Sciences Elective	3	Humanities Elective (300+)	3
		17	16
		Year 3	
Semester 1	Credit Hours	Semester 2	Credit Hours
PHYS 301	3	PHYS 309	3
PHYS 308	3	PHYS 460 ²	3
PHYS 361	4	Free Elective	3
PHYS 405 ¹	3	I PRO Elective I	3
Social Sciences Elective (300+)	3	Social Sciences Elective (300+)	3
		16	15
		Year 4	
Semester 1	Credit Hours	Semester 2	Credit Hours
PHYS 413	3	PHYS 304	3
PHYS 427	3	PHYS 403 ²	3
PHYS 461 ²	3	PHYS 485	1
PHYS 485	1	I PRO Elective II	3
Free Elective	3	Free Elective	3
Humanities Elective (300+)	3	Free Elective	3
		16	16

Total Credit Hours: 126

¹ PHYS 405 can also be taken in the 7th semester with a free elective moved to the 5th semester.

² These three courses will be offered in a three-semester rotation and taken by 3rd and 4th year students together.