



(A Catholic Christian Minority Institution, Affiliated to Acharya Nagaarjuna University Approved by AICTE, New Delhi, Recognised by- UGC (2F) New Delhi)





# **B.SC HONOURS (PHYSICS)**

B.Sc Honours (Physics) is a four-year undergraduate program that explores the fundamental principles of physics. **Our college is offering a three-year degree program**. The course covers essential topics such as Quantum Mechanics, Electromagnetism, Optics, Calculus, Semiconductors, Waves, and Statistics. The program is structured into six semesters, with each semester comprising theory classes, laboratory work, and practical examinations.

#### **Course Overview:**

Graduates of B.Sc Honours (Physics) can pursue careers in both private and public sectors as physicists, researchers, scientists, assistant radiologists, statisticians, and more. The program aims to develop strong analytical, reasoning, and problem-solving skills, preparing students for advanced studies or immediate employment.

### Why Choose B.Sc Honours (Physics)?

Physics is a core science that explains how the universe operates. Advancements in physics directly influence technological progress. The degree enhances logical thinking, reasoning, and intellectual capabilities, opening doors to rewarding career opportunities. The curriculum balances modern and classical physics, covering topics like quantum mechanics, relativity, electrodynamics, and optics, providing a comprehensive foundation for further studies or professional pursuits.

### **Ideal Candidates for B.Sc Honours (Physics):**

- Students with a strong interest in physics and high reasoning abilities.
- Those with conceptual minds and good imagination.
- Investigative and logical thinkers with solid mathematical skills.
- Students seeking alternatives to engineering and interested in exploring theoretical and experimental physics.
- ❖ Individuals with analytical skills and the ability to tackle complex problems.

# Scope After B.Sc Honours (Physics) in India:

Graduates can continue their education with MSc or PhD programs or enter the workforce as researchers, physicists, lab assistants, teachers, and more. The degree also provides a pathway to advanced specializations in fields like Oceanography, Meteorology, Electronics, Nuclear Physics, and Applied Physics.

# **Further Courses After B.Sc Honours (Physics):**

- M.Sc. in Physics (General)
- o M.Sc. in Oceanography, Meteorology, Electronics, Nuclear Physics, etc.
- o M.Tech. in Physics or Solid State Technology
- o M.S. in Optics, Medical Imaging, or Physics
- Ph.D. programs in Applied Physics or Physics
- MBA for career growth

# **Career Opportunities and Salaries:**

Graduates can work as research assistants, lab technicians, physicists, radiologists, statisticians, teachers, and more. Salary ranges vary:

- Content Developer
- Lab Supervisor

- Radiologist Assistant
- Statistician
- Senior Physicist
- Researcher
- Radiation Oncologist
- Consulting Physicist
- Research Associate
- High School Teacher

#### **Admission Process:**

- The B.Sc Honours (Physics) program offers a total of 25 seats, with 18 seats allocated through the convenor quota and 7 seats available under management quota.
- For admissions, you can contact the college office or send us an email for further assistance.

#### Admission & Eligibility:

To be eligible for B.Sc. Honours (Physics), candidates must meet the following criteria:

- ❖ Education: Must have cleared the Class 12th board exams from a recognized board.
- Subject Combination: Must have studied MPC (Mathematics, Physics, Chemistry) or BiPC (Biology, Physics, Chemistry) in Class 12th.

**Minor Course: Computer Science** 

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Semester	Major (4 Cr)			Minor (4 Cr)			AECC (3 Cr)			Multi <u>Disny</u> ' (2 Cr)			Skill Enhancement Courses (4Cr/2Cr)				оотс		(VAC) IKS# Env. Edn* (2 Cr)			Total		
	С	Н (Т+Р)	Cr	с	H (T+P)	Cr	С	H (T+P)	Cr	с	Н (Т+Р)	Cr	С	H (T+P)	Cr	С	H (T+P)	Cr	С	H (T+P)	Cr	С	H (T+P)	Cr
Sem 1	2	6+4	8				2	8	6				1	4+2	4							5	24	18
Sem 2	2	6+4	8				2	8	6	1	2	2	1	4+2	4				1#	2	0	7	28	20
Community Service Project of a minimum of 80 hours with 1 Credits. Student is eligible for Exit Option-1 with the award of Certificate in respective discipline													1											
Sem 3	3	9+6	12	1	3+2	4	2	8	6	1	2	2	1	2	2							8	32	26
Sem 4	3	9+6	12	1	3+2	4				1	2	2	1	2	2							6	24	20
Sem 5	1+2	3+2 6+4	12	2	6+4	8													1*	2	2	6	27	22
Sem 6	2	6+4	8	2	6+4	8																4	20	16
Internship/Apprenticeship/OJT a minimum of 180 hours (8 weeks) with 3 Credits. Student is eligible for Exit Option-2 with the award of Degree in respective discipline													3											
	15		60	6		24	6		18	3		6	4		12				1+1		2	36		126
Sem 7	3	9+6	12										2	6+4	8	1	2	2	1#	2	0	7	29	22
Sem 8	3	9+6	12										2	6+4	8	1	2	2	1#	2	0	7	29	22
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С	Courses				н	Но	ours			Cr Credits					OOTC Open On			Onl	ine Transdisciplin				7	
#	Indian Knowledge Systems - Audit Course * Environ Edn																							

⁄ear	Semesters	Major Courses	No. Courses & Credits	Total Credits			
	I	1,2	2 x 4	8			
ı	П	3,4	2 x 4	8			
	III	5,6,7	3 x 4	12			
II	IV	8,9,10	3 x 4	12			
	V	11,12,13	3 x 4	12			
Ш	VI	14,15	2 x 4	8			
		·		60			
	1	Minor Title -	Business Management				
Year	Semesters	Mainor Courses	No. Courses & Credits	Credits			
	III	1	1 x 4	4			
II	IV	1	2 x 4	4			
	V	3,4	2 x 4	8			
Ш	VI	5,6	2 x 4	8			
		,-		24			
Year	Semesters	Course Name	No. Courses & Credits	Credits			
	l	English Bridge -I	1 x 3	3			
	II	English Bridge -II	1 x 3	3			
П	III	English Bridge -III	1 x 3	3			
				09			
Year	Semesters	Course Name	No. Courses & Credits	Credits			
	ı	Telugu /Sanskrit/Hin	1 x 3	3			
ı	ii	Telugu /Sanskrit/Hin	1 x 3	3			
Ш	III	Telugu /Sanskrit/Hin	1 x 3	3			
		rerugu / Suriskrie/ riiii	173	09			
Year	Semesters	Course Name	No. Courses & Credits	Credits			
<u>rcu.</u>	l	SEC-Al Intro.	1 x 4	4			
-1	ı II	SEC-Al Applications	1 x 4	4			
II.	III	SEC-	1 x 2	2			
	IV	SEC-	1 x 2	2			
	10	520	1 / 2	12			
⁄ear	Semesters	Course Name	No. Courses & Credits	Credits			
		Multidisciplinary -1	1 x 2	2			
<u>'</u> 	III	Multidisciplinary-2	1 x 2	2			
III	IV	Multidisciplinary-3	1 x 2	2			
111	IV	iviuitiuiscipiiliary-5	1 X Z	2 			
<b>/</b> 02=	Somestors	Course Name	No. Courses & Credits	Credits			
<u>Year</u>	Semesters						
1111	II V	IKS	1 x2	0			
Ш	V	Valu added -EVS	1 x 2	2			
	11 - 6	CCD		02			
<u> </u>	II after	CSP	1				
Ш	VI	Internship	3	4			