Central University of Himachal Pradesh

Department of Physics and Astronomical Science

Shahpur Campus

B. Sc. (Honours) Physics

Programme Specific Outcomes

2021

Semester-Wise Distribution of Courses

Semester	Type of Courses	Credits	Total Credits
I	Major Courses	08	**20**
	IDC Minor Course	04	
	Lab/field	02	
	Vocational/Skill	02	
	IKS	04	
II	Major Courses	08	**20**
	IDC Minor Courses	04	
	Lab/field	02	
	Vocational/Skill	04	
	Indian Language	02	
III	Major Courses	04	**20**
	Minor Courses	04	
	Lab/Field	04	
	Vocational/Skill	08	
	Community Connect	04	
IV	Major Courses	08	**20**
	Minor Courses	04	
	Lab/Field	02	
	Vocational/Skill	02	
	Environmental Studies	04	
V	Major Courses	08	**20**
	Minor Courses	02	
	Vocational/Skill	02	
	Swachh Bharat	02	
	Environmental Studies	02	
	Community Connect	04	

	Subject Internship/ Innovation		
VI	Major Courses	08	**20**
	Minor Courses	04	
	IKS	04	
	Cultural Exchange	04	
VII	Major Courses	04	**20**
	Minor Courses	04	
	Lab/field	02	
	Advanced Knowledge in Discipline	10	
VIII	Major Courses	04	**20**
	Minor Courses	02	
	Lab/field	02	
	Advanced Knowledge in Discipline	08	
	Research Work	04	
Total			**160**

B. Sc. (Honours) Physics

Programme Specific Outcomes

The B Sc (Honours) in Physics programme at Department of Physics and Astronomical Science, Central University of Himachal Pradesh provides a broader framework which helps to create an academic base that eventually strengthen the students to understand the basic laws of physics and its imperative applications in various physical domains. The programme is designed and implemented in such a way that helps the students acquire scientific attitude, develop critical and analytical skills and research oriented aptitude along with understanding the conventional existing knowledge base in the subject. Apart from the main subjects of the programme, the students has options to relate the knowledge gained and connect it to the society, in general, through community connect program of the department. The programme is designed in such a way that it reflects all the basic ingredients of the National Education Policy (NEP 2020) in its true spirit. During the fourth year of the programme the students are exposed to the advanced level topics of the course at par with the first year of post graduation helping them understand the intricacies of the field to decide the career option in higher studies. Furthermore, during the research project in the final year the students are trained to acquire additional skills like analytical, numerical and experimental skills helping them prepare for the research career ahead. In addition, the students are expected to acquire rational thinking and critical approach which will help them beyond the subject lines in other allied areas whether it is in education or research sector or in social sector, in general. Some of the outcomes, identified by the department are listed below:

1. The students will have good disciplinary knowledge and be able to apply it to real physical system with an approach to extend it to other similar domains.
2. The students will acquire analytical and experimental skills through theory and laboratory sessions.
3. After the completion of this programme, the students will acquire the knowledge and general competence required to pursue higher studies in the subject including education and research.
4. The course as a whole opens up several career doors for the students interested in various areas of science at technology in private, public and government sectors.
5. The students would gain substantial knowledge in various branches of physics such as classical and quantum mechanics, mathematical physics, statistical mechanics, condensed matter physics, astronomy and astrophysics and nuclear and particle physics.

6. The research project during the final year is intended to develop a problem solving aptitude through which the student is encouraged to apply the acquired knowledge to real physical systems.
7. Other than the subject specific quality outcomes, the student, in general, will acquire a good sense of responsibility of preserving our environment through active participation in courses like Swachh Bharat and Environmental studies.