Course Outcome (CO)

B. Sc. in Physics (Hons.)

<u>COA:</u> To enhance the capability of the students in knowledge production and thus to equip them with skills relevant for national and global standards.

<u>COB:</u> To prepare the students for coherent understanding of the basic fields of Physics, its different learning areas and applications, its linkage with mathematics and other related subjects.

COC: To promote the ability to use skills in physics and its related areas of technologies for formulating, identifying and applying appropriate physical principles and methodologies in solving a wide range of problems.

<u>COD</u>: To develop the ability amongst the students to plan and execute Physics related experiments, to handle sensitive electrical and electronic circuits and to use modern and sophisticated instruments. And also to analyze and interpret data/information collected using appropriate method and software packages.

<u>COE:</u> To encourage the students to use different modern techniques, application software including programming languages for analysis of experimental data and report accurately the findings of the experiments.

<u>COF:</u> To promote the habit of reading texts, reference books and research papers analytically and to construct logical arguments using correct technical language.

<u>COG:</u> To improve the i) communication skills including the ability to listen carefully, ii) personal skills that is the ability to work independently and in a group. And iii) ICT skill.

<u>COH:</u> To create /produce professionals related to the subject area of Physics who will be engaged in research and development, teaching and other Public/Private sector services.

<u>COI:</u> To make the students capable to face global competition by enhancing their problem solving skills, investigative skill that is the skill to investigate physics related problems independently.

<u>COJ:</u> To inculcate /insert qualities among the students/graduates such as i) commitment to the profession ii) Ethical integrity that involves resisting pressure in decision making and not abusing power iii)Enhancement of competencies by offering ideas clearly and effectively with subsequent logical explanation.

Course Specific Outcome (CSO)

CSO		COA	COB	COC	COD	COE	COF	COG	СОН	COI	COJ
CC1(Mathematical Physics I)	Theory	V	V	$\sqrt{}$		V	V	$\sqrt{}$	V	V	$\sqrt{}$
	Practical	V	V	V	V	V	V	V	V	V	$\sqrt{}$
CC2 (Mechanics)	Theory	V	√	$\sqrt{}$	√	√	√	√	√	V	$\sqrt{}$
	Practical	V	√	$\sqrt{}$	√	√	√	V	√	V	√
CC3 (Electricity and Magnetism)	Theory	V	√	$\sqrt{}$	√	√	√	V	√	V	√
	Practical	V	V	√	1	√	√	V	1	V	V
CC4 (Waves and Optics)	Theory	V	V	√	√	√	√	V	√	V	√
	Practical	V	V	√	1	√	√	V	1	V	√
CC5 (Mathematical Physics II)	Theory	V	V	$\sqrt{}$		√	√	V	√	V	√
	Practical	V	V	V	V	V	V	V	V	V	V
CC6 (Thermal Physics)	Theory	V	$\sqrt{}$	$\sqrt{}$	√	V	V	$\sqrt{}$	√	$\sqrt{}$	$\sqrt{}$
	Practical	V	V	$\sqrt{}$	√	V	V	V	√	$\sqrt{}$	$\sqrt{}$
CC7 (Modern Physics)	Theory	V	V	$\sqrt{}$	V	V	V	V	√	$\sqrt{}$	$\sqrt{}$
	Practical	V	$\sqrt{}$	$\sqrt{}$	√	V	V	$\sqrt{}$	√	$\sqrt{}$	$\sqrt{}$
CC8 (Mathematical Physics III)	Theory	V	$\sqrt{}$	$\sqrt{}$		V	V	$\sqrt{}$	√	$\sqrt{}$	$\sqrt{}$
	Practical	V	1	V	1	1	1	V	1	V	V
CC9 (Analog Electronics)	Theory	V	V	$\sqrt{}$	√	V	V	V	√	$\sqrt{}$	$\sqrt{}$
	Practical	V	$\sqrt{}$	$\sqrt{}$	√	V	V	$\sqrt{}$	√	$\sqrt{}$	$\sqrt{}$
CC10 (Quantum Mechanics)	Theory	V	V	V		V	V	V	V	V	V
	Practical	V	V	V	V	V	V	V	V	V	V
CC11 (Electromagnetic Theory)	Theory	V	$\sqrt{}$	$\sqrt{}$	√	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	√	V	$\sqrt{}$
	Practical	V	V	V	V	V	V	V	V	$\sqrt{}$	V
CC12 (Statistical Physics)	Theory	V	V	V		√	√	V	√	V	√
	Practical	V	V	V	V	V	V	V	V	V	V
CC13 (Digital Systems and Applications)	Theory	V	V	$\sqrt{}$	√	√	√	V	√	V	√
	Practical	1	√	V	1	√	1	V	1	V	V

CSO		COA	COB	COC	COD	COE	COF	COG	СОН	COI	COJ
CC14 (Solid State Physics)	Theory	V	V	$\sqrt{}$	V	√	√	$\sqrt{}$	V	√	√
	Practical	√	√	√	√	√	√	$\sqrt{}$	√	√	√
DSEA1a (Advanced Math methods)	Theory	V	V	$\sqrt{}$			√	$\sqrt{}$	√	√	1
	Tutorial	1	1	V			V	V	V	1	V
DSEA1b (Laser and Fibre Optics)	Theory	V	V	$\sqrt{}$			$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	V	$\sqrt{}$
	Tutorial	V	V	$\sqrt{}$			V	$\sqrt{}$	V	V	$\sqrt{}$
DSEA2a (Nano materials and Applications)	Theory	√	√	√			√	$\sqrt{}$	√	√	√
	Tutorial	V	V	V			V	V	V	V	V
DSEA2b (Advanced Classical Dynamics)	Theory	1	1	$\sqrt{}$			$\sqrt{}$	$\sqrt{}$	V	1	1
	Tutorial	V	V	V			V	V	V	V	V
DSEB1a (Astronomy and Astrophysics)	Theory	√	√	√			V	$\sqrt{}$	V	V	√
	Tutorial	V	V	V			V	V	V	V	V
DSEB1b (Nuclear and Particle Physics)	Theory	√	√	$\sqrt{}$			$\sqrt{}$	$\sqrt{}$	V	√	1
	Tutorial	1	1	V			1	V	1	1	1
DSEB2a (Communication Electronics)	Theory	V	V	$\sqrt{}$			$\sqrt{}$	$\sqrt{}$	V	√	$\sqrt{}$
	Tutorial	1	1	V			V	V	1	1	1
DSEB2b(Advanced Statistical Mechanics)	Theory	1	1	$\sqrt{}$			1	$\sqrt{}$	1	1	$\sqrt{}$
	Tutorial	1	1	$\sqrt{}$			V	$\sqrt{}$	V	1	√
SECA1 (Scientific Writing)	Project Type	V	V	V			V	V	V	V	V
SECA2(Renewable energy and energy harvesting)	Knowledge Skill	V	V	V			V	V	V	V	V
SECB1 (Arduino)	Project Type	V	V	V	V	V	V	V	V	V	V
SECB2 (Electrical Circuits and Network skills)	Knowledge Skill	V	V	V			V	V	V	V	V