Department of Physics
GDC Paonta Sahib

Course learning outcomes

S.No.	Course Title	Course Code	Class	Co's	Course Outcome
1	Mechanics	PHYS101	B.SC 1st Year	CO1	To impart knowledge about various aspects of mechanics.
				CO2	Application of principles in terrestrial world development.
				CO3	Applications of theory of relativity in astronomy and space science.
2	Electricity, Magnetism and EMT	PHYS102	B.SC 1st Year	CO1	To impart knowledge about static electricity with applications in science.
				CO2	To make aware about various principles of current electricity and its applications.
				CO3	To make students aware of Magnetic effects of current and applying it to science.
				CO4	To develop interest in concept of em waves . role of em waves in science today.
				CO5	Em waves and understanding universe.
3	Tatistical and Thermal Physics (DSE)	PHYS201	B.SC 2nd Year	CO1	To train students in statistical methods .
				CO2	To use Statistical phenomenon in thermal applications of solids and gases .
				CO3	To impart knowledge about various devices and making use of thermodynamics.
4	Waves and Optics (DSE)	PHYS202	B.SC 2nd Year	CO1	To impart knowledge about waves & oscillations.
				CO2	Applications of waves & oscillations to solids.
				CO3	To make students understand basic concept of optics.
				CO4	Applications of concepts of optics in explaining various phenomenon of nature and astronomical phenomenon.
5	Physics Workshop Skills (SEC)	PHYS203	B.SC 2nd Year	CO1	To enable the students to get familiar with various mechanical and electrical tools.
				CO2	Applications of with various mechanical and electrical tools through hands-on mode.
6	Computational Physics (SEC)	PHYS204	B.SC 2nd Year	CO1	To make students aware of basics of computer programming.
				CO2	To impart Knowledge of Numerical analysis and it's use in computation physics.
				CO3	To emphasize its role in solving problems in Physics.
7	Electrical Circuits and Network Skills (SEC)	PHYS205	B.SC 2nd Year	CO1	To enable the students to design the electrical circuits and networks .
				CO2	To understand trouble shoots in electrical circuits, networks and appliances.
				CO3	Hands-on mode applications.
8	Basic Instrumentation Skills (SEC)	PHYS206	B.SC 2nd Year	CO1	This course is to get exposure with various aspects of instruments and their usage through hands-on mode.
9	Elements of Modern Physics (DSE-1 A)	PHYS301	B.SC 3rd Year	CO1	To make students aware of basic principles of micro world.
				CO2	To differentiate micro from macro world.
				CO3	To explains facts through application of these principles.
				CO4	To explains atomic energy.
10	Solid State Physics and Electronics (DSE-1 A)	PHYS302	B.SC 3rd Year	CO1	To make students aware of basics of solid structure.
				CO2	To impart knowledge about application in designing various electronic circuits.
				CO3	To tell students about various solid state devices and their role in development in science and applications.
11	Astronomy and Astrophysics (DSE-1 A)	PHYS303	B.SC 3rd Year	CO1	To explains basic principles of Astronomy.
				CO2	To impart knowledge about astronomical events.
				CO3	To develop interest in understanding universe.
12	Nuclear and particle Physics (DSE-1 B)	PHYS304	B.SC 3rd Year	CO1	To make student aware of nucleus and it' constituents and models to explain nucleus.
				CO2	To make students understand various underlying principles that explain Nuclear properties.
				CO3	To make students aware of it's applications in nuclear energy and origin of solar energy.

				CO4	To tell students about elementary particle and it's applications to unfold mysteries of universe.
13	Quantum Mechanics (DSE-1 B)	PHYS305	B.SC 3rd Year	CO1	To make students aware of basic principles of micro world.
				CO2	To differentiate micro from macro world.
				CO3	To explains facts through application of these principles.
				CO4	To explains atomic energy.
14	Physics of Devices and Instruments (DSE-1 B)	PHYS306	B.SC 3rd Year	CO1	To imparts knowledge about various Electric and electronic devices.
				CO2	To make students understand power supply and it's principles on how it works.
				CO3	To make students understand Working of communication systems.
15	Radiation Safety (SEC-2)	PHYS307	B.SC 3rd Year	CO1	To Make students aware of Radiation hazards.
				CO2	To make them understand ill effects of radiation exposure.
				CO3	To make students aware of radiation safety procedures and techniques.
				CO4	To explain safe use of radiation equipment in medical and other applications.
16	Applied Optics (SEC-2)	PHYS308	B.SC 3rd Year	CO1	Skill based Project or Dissertation work on any topic of syllabus for Analytical skill/ Problem solving.
17	Weather Forecasting (SEC-2)	PHYS309	B.SC 3rd Year	CO1	To make the students aware of theoretical principles in weather phenomenon.
				CO2	To enable them to develop awareness and understanding regarding the causes and effects of different weather phenomenon.
				CO3	To make them understand basic forecasting techniques.
18	Renewable Energy and Energy Harvesting (SEC-2)	PHYS310	B.SC 3rd Year	CO1	To impart knowledge about primary sources and secondary sources of Energy.
				CO2	To impart knowledge about various harvesting techniques .
				CO3	To provide them with exposure and hands-on learning .
				CO4	To enable students develop better harvesting methods for betterment of society.