

# COURSE OBJECTIVES AND COURSE OUTCOMES

## F. Y. B. Sc. SEMESTER - I

### PHYSICS PAPER - II

#### SUBJECT: MODERN PHYSICS (USPH102)

Sr. No.	Course Objectives	Course Outcomes
1)	Elucidate the concepts from nuclear physics such as nuclear properties, radioactivity, nuclear reactions and nuclear detectors	Cognize the basic properties of nucleus, radioactive decay, properties of alpha, beta and gamma rays, isotopes and carbon dating  Explore topics on nuclear reactions, fission, fusion, detectors
2)	Apprise the quantum mechanical ideas such as particle and wave nature of the matter and EM waves	Comprehend the quantum mechanical ideas, the Heisenberg uncertainty principle, properties and applications of X-rays  Perceive the concepts such as Compton effect, pair production, gravitational red shift
3)	Aid the students for the problem-solving abilities	Unravel theoretical and numerical problems of simple and semi-complex nature
4)	Deliberate the current scientific and technological developments in the context of the syllabus	Update self with current advances in science and technological fields and their role in present societal needs
5)	Correlate the theory with practical course	Understand the association between theory and experiments

## COURSE OBJECTIVES AND COURSE OUTCOMES

F. Y. B. Sc. SEMESTER - II

SUBJECT: PHYSICS PAPER - II (USPH201)

Sr. No.	Course Objectives	Course Outcomes
1)	To investigate the working of Ac circuits.	Students can analyse simple circuits which are involving alternating current
2)	To discuss the working of bridge circuits	Students can compare different bridge circuits and identify their applications
3)	To develop the concept of semiconductor diode and rectification	Students can discuss the working and applications of rectifier circuits
4)	To explain Network theorems	Students can analyse basic DC circuits using Thevenin's theorems, Nortons theorem and Maximum power transfer theorem
5)	To introduce the idea of Logic gates	Students can construct simple logic circuits using basic and derived gates
6)	To discuss basic concepts of Electrostatics and magnetostatics	Students will develop basic concepts of electric field and electric potential and magnetostatics