

MARUDHAR KESARI JAIN COLLEGE FOR WOMEN, VANIYAMBADI

Department: Physics

Program Outcomes: B.Sc Course

Students who have completed a Bachelor degree in Physics:

- PO1 Have an option for master education in Physics
- PO2 A good option for to go with master degree in medical physics and specialized subject.
- PO3 A skill of good understanding of physics and also offer them opportunities to work as professional like lab assistant and to write varies government exams.

Program Specific Outcomes:

UG Graduates of the degree will have the capacity of:

- PSO1 Understand the core concept of Physics subjects
- PSO2 Students are expected to acquire knowledge in physics, including the major premises of classical mechanics, quantum mechanics, electromagnetic theory, electronics, optics, Special theory of relativity, modern physics, microprocessors, Astrophysics and the splitting of the atom model .
- PSO3 Students are expected to develop written and oral communication skills in communicating Physics-related topics.
- PSO4 Discover of physics concepts in other disciplines such as applied mathematics, engineering and chemistry etc.
- PSO5 Perform and testing of different electronics components and circuits.
- PSO6 Repair small household electrical and electronics appliance.
- PSO7 Understand the working of solid state semiconductor devices used in the circuit
- PSO8 Understand and design different controlling circuits used in digital electronics.
- PSO10 Design the circuits and install it on Bread boards
- PSO11 Perform the calculations on combination of basic components such as resistors Capacitors, multimeter, IC, voltmeter and ammeter

PSO12 Perform simple assembly language program using instruction of 8085
Microprocessor and understand the need of interfacing and different modes of data Transfer

POS 13 Trained to take up jobs in allied fields.

PSO14 Confident to take up competitive exams

Course Outcomes:

Class	Course Code	Outcomes
I B.Sc	CO1	Students get the knowledge on matter which can undergo changes that can be described and categorized.
	CO2	Students will learn about the temperature changes in every state and the effect of temperature with matters.
II B.Sc	CO3	Understand the basic mathematical concepts related to electromagnetic vector fields
	CO4	It has designed for to learn electrical circuits. It helps to operate instruments accordingly.
	CO5	It gives an idea and examples of different design with solving of many problems using mathematically.
	CO6	It has designed for to learn electrical and electronic circuits. It helps to operate instruments accordingly and also it gives basic information about the active and passive devices.
	CO7	Students get the discipline of optics and role of modern technology it covers the geometrical approximation, types of lens and wave propagations and its properties.
	CO8	It explains the scientific study of structure of the atom, its energy, interactions, electric and magnetic fields.
	CO9	It gives the knowledge about basic electronic instruments. It helps to understanding basic electronic circuits to develop the knowledge about electronic devices. To identify small problems in daily use electronic instruments.

III B.Sc	C10	Students will understand the basic knowledge of digits, applications and developments in communication and technology.
	CO11	It gives the idea about astronomy, stars planets and universe in astronomy.
	CO12	An idea about the interactions of the atom molecules building blocks. Mainly study about nuclear power generation and weapons in technology developments.
	CO13	The behavior of objects in space and time. To predict everything from the existence of black holes, to light bending due to gravity to the planets.
	CO14	A wide knowledge about solids, properties of materials, structure, phase and applications etc.,
	CO15	It covers the electronic circuits of active and passive components. An basic information about devices in engineering industry.
	CO16	Gains the basicknowledge of microprocessor and its functions
	CO17	For understanding the various functions and parts of instruments its applications in daily life.

Program Outcomes: M.Sc Course

Students who have completed a Master degree in Physics;

PO1 Online tutor, Laboratory Technician, School Science Technician or Research Analyst, Observation Scientist, Assistant Scientist, Junior Research Fellow etc,

PO2 Can be able to further go and pursue a doctorate (PhD) in Physics.

Program Specific Outcomes:

PG Graduates of the degree will have the capacity of:

PSO1 Learn the structure of solid materials and their different physical properties along with metallurgy, cryogenics, electronics, & material science.

PSO2 Understand the fundamental theory of nature at small scale, levels of atom and subatomic particles.

PSO3 Demonstrate engagement with current research and developments in the subject.

PSO4 Critically interprets data, write reports and apply the basics of rules of evidence.

PSO5 Learn and understanding the interpret and critically evaluate information from a range of sources that include books, scientific reports, journals, case studies and the internet.

PSO6 Develop proficiency in the analysis of complex physical problems and the use of mathematical or other appropriate techniques to solve them.

PSO7 Demonstrate skills in the use of computers for control, data acquisition and data analysis in experimental investigations.

PSO8 Provide a systemic understanding of core physical concepts, principles and theories along with their applications.

PSO9 Learns statistical interpretation of thermodynamics micro canonical, canonical and grand canonical ensembles and their applications.

PSO10 Perform simple assembly language program using instruction of 8085, 8086 and microcontroller 8051 and understand the need of interfacing and different modes of data Transfer

PSO11 Competences in using electronics modern IT tools for the design and analysis of complex electronics system

PSO12 Skills to apply the contextual knowledge to assess effectively to manage different in a multidisciplinary projects

Course Outcomes:

Class	Course Code	Outcomes
	CO1	A knowledge about nature, structure and evolution of physical world with mathematical approach.
	CO2	The mechanical related concepts and deals with the Lagrange, Hamiltonian formalism.
	CO3	It gives the basic knowledge about the microscopic level particles, in theoretical analysis.

I M.Sc	CO4	The working of electronic devices in detail and to gain the knowledge about handling of electronic devices and its applications in daily life.
	CO5	Knowledge about Dirac, Hamiltonian, Fourier series functions and Laplace equations.
	CO6	In electrostatics related problems, electric field, potential and boundary conditions.
	CO7	It describes the many aspects of atomic and subatomic level particles and waves.
	CO8	Students will get the wide knowledge about the nanoscience and technology. Applications in textiles, polymers, packaging of foods and research fields etc.,
II M.Sc	CO9	An analytical, chemical and molecular understanding of spectra, it can be used to detect the information about an atoms and molecules.
	CO10	It is mainly focusing the nuclear interaction, reaction and radiation of nucleus.
	CO11	Students will get knowledge about the microprocessor and controller and its applications.
	CO12	It covers the basic knowledge about the research in crystal field. It covers methodology of experiments and characterization techniques.
	CO13	The advanced knowledge about materials, properties and its functions.
	CO14	The magnetic levitation for transportation, digital circuits, power cables and electronic filters. It deals the macroscopic and microscopic matters.
	CO15	It has advancement of fetching, registers, ALUs and memory access and its applications, gains knowledge on automatic functioning machines with microprocessor programming

Program Outcomes:M.Phil Course

Students who have completed a Master of Philosophy in Physics;

PO1 Can be able to further go and pursue a doctorate (PhD) in Physics.

PO2 A pre-doctorate course and the objective is to provide the students with foundation knowledge possible for a Science-based career

Program Specific Outcomes:

M.Phil Graduates will have the capacity of:

PSO1 An important role in the future progress of humankind. The support of study and research is important in all the countries because of its importance in almost all aspects of life.

PSO2 In-depth, specialized knowledge, to do a research specific field.

PSO3 An ability to discover and design via analytical thinking and have an interest in searching for various sustainable materials.

PSO4 Have a skill to gather information from resources and how to use them appropriately.

Course Outcomes:

Class	Course Code	Outcomes
M.Phil	CO1	An analytical thinking of research and its process,.
	CO2	It covers the advanced physics which have materials properties, in different aspects.