

GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)

KUMBAKONAM – 612 001

Affiliated to Bharathidasan University

DST - CURIE Sponsored Institution

IV Cycle of Accreditation



☎ 0435 – 2401391


✉ principal@gcw.ac.in



DEPARTMENT OF PHYSICS - UNDER GRADUATE

SL. NO	COURSE CODE	COURSE NAME	ISSUED ADDRESSED	FOCUS OF THE COURSE
1.	18PHC101/ U21PHC101	Properties of Matter & Sound	Professional Ethics	To study various properties of solids and liquids
2.	18PHC203/ U21PHC203	Mechanics and Relativity	Professional Ethics	To comprehend the statics and dynamics of mechanical systems
3.	18PHC304/ U21PHC305	Thermal and Statistical Physics	Professional Ethics	To understand the effect of temperature on materials
4.	18PHC406/ U21PHC407	Optics	Professional Ethics	To know the properties of light, mechanism of transmission and related phenomenon
5.	18PHC507/ U21PHC509	Electricity And Magnetism	Professional Ethics	Explain the fundamental laws of Electrostatics, Magneto statics and electromagnetism
6.	18PHC508/ U21PHC510	Atomic Physics	Professional Ethics	To study the atom models and influence of electrical and magnetic fields
7.	18PHC509/ U21PHC511	Basic Electronics	Professional Ethics	Analyse the physical operation and applications of semiconductor electronic devices
8.	18PHC611/ U21PHC613	Wave Mechanics and Nuclear Physics	Professional Ethics	To know the basic properties of nuclei, postulates of wave mechanics




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9.	18PHC612/ U21PHC614	Solid State Physics	Professional Ethics	To understand the physics of solids
10.	18PH6EC4/ U21PH6MBE2 :1	Integrated Electronics	Professional Ethics	To understand the functioning of gates, Boolean algebra and construct digital circuits
11.	U21PH3NME 1:2	Energy Physics	E & S	To insist on the importance of depleting natural resources and the need to provide alternate solutions through renewable resources to address the energy demands and pave the way for sustainable future
12.	18PH3NMEC1 / U21PH3NME 1:1	Physics made easy	Professional Ethics	To impart the students a simple understanding of the basic concepts of physics.
13.	18PH4NMEC2 / U21PH4NME 2:1	Simple Appliance	Professional Ethics	To provide basic ideas for inspection of electrical devices useful in day to day life.
14.	SBEA/ U214PHSE1	Electrical Appliance	Professional Ethics	To know the principle and theory of current conduction, basic electrical appliances and safety measures.
15.	SBMP/ U214PHSE2	Medical Physics	Professional Ethics	To understand the basics of Medical physics and related medical instrumentation
16.	SBAV/ U214PHSE3	Audio and Video System	Professional Ethics	To know the instrumentation and mechanism involved in audio and video transmission systems




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17.	18PH5EC3:1/ U21PH5MBE1 :1	Spectroscopy And Laser Physics	Professional Ethics	To study rotational, vibrational, electronic and Raman spectra of molecules and to understand the basic principles of laser and its applications.
18.	18PH5EC3:2	Solid state and Material Science	Professional Ethics	To understand the Physics of solids including crystal structure, bonding and electrical conductivity.
19.	18PH6EC4:1/ U21PH6MBE2 :1	Integrated Electronics	Professional Ethics	To understand the functioning of gates, Boolean algebra and construct digital circuits
20.	18PH6EC5:1/ U21PH6MBE3 :1	Computer Programming - C Language	Professional Ethics	Develop programs using C language
21.	18PHC202P1/ U21PHC101	Major Practical-I	Professional Ethics	To give hands on experience in performing experiments related to various branches of physics
22.	18PHC405P2/ U21PHC204P	Major Practical-II	Professional Ethics	To give hands on experience in performing
23.	18PHC510P3/ U21PHC306P	Major Practical-III	Professional Ethics	experiments related to various branches of physics
24.	18PHC613P4/ U21PHC408P	Major Practical - IV	Professional Ethics	To give hands on experience in performing




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DEPARTMENT OF PHYSICS - POST GRADUATE

SL. NO	COURSE CODE	COURSE NAME	ISSUED ADDRESSED	FOCUS OF THE COURSE
1.	P18PHC101/ P21PHC101	Classical Dynamics & Relativity	Professional Ethics	To understand the mechanics of classical systems by formulating Lagrangian or Hamiltonian and find the equations of motions.
2.	P18PHC102/ P21PHC102	Mathematical Physics	Professional Ethics	To be proficient in vector theory, group theory and special functions essential to understand physical systems.
3.	P18PHC103/ P21PHC205	Statistical Mechanics	Professional Ethics	To understand the mechanics of systems by formulating different theories of classical and quantum statistical mechanics.
4.	P21PH1MBE1 :1	Analog Electronics, Microprocessor and microcontroller	Professional Ethics	To analyze the operation of various analog electronic devices and to understand the circuits and functioning of gates, Boolean algebra and construct digital circuits.
5.	P18PHC104P1 / P21PHC104P	Practical I- General Experiments	Professional Ethics	To understand the principles of Physics by performing experiments related to various branches of physics.
6.	P18PHC205/ P21PHC103	Numerical Methods	Professional Ethics	Problem solving with numerical techniques.
7.	P18PHC206/ P21PHC206	Quantum Mechanics	Professional Ethics	To formulate and solve Schrodinger wave equations to determine the dynamics of quantum mechanical systems.
8.	P18PHC207P2 / P21PHC208P	Practical II- Electronics Experiments	Professional Ethics	To perform experiments of analog and digital electronics In addition to few characterization techniques.
9.	P18PHC208/ P21PHC208P	Programming in C++	Professional Ethics	To identify and practice the object-oriented programming concepts and techniques
10.	P18PHC309/ P21PHC309	Atomic and Molecular Spectroscopy	Professional Ethics	To study the theories of atom models and analyze atomic spectra using spectroscopic techniques.




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11.	P18PHC310/ P21PHC309	Electromagnetic Theory	Professional Ethics	To understand the laws and associated applications involving electromagnetic theory.
12.	P18PHC311/ P21PHC311	Nuclear and Particle Physics	Professional Ethics	To know the structure and properties of nuclei, postulates of wave mechanics and relativity.
13.	P18PHC312P3 / P21PHC312P	Advanced Electronics -I Practical III/	Professional Ethics	To perform experiments of analog and digital electronics in addition to few characterization techniques.
14.	P18PHC413/ P21PHC413	Condensed Matter Physics	Professional Ethics	To interpret the physical properties of solids in the light of crystal structure, bonding and electronic configuration.
15.	P18PHC414P4 / P21PHC414P	Advanced Electronics -II Practical IV	Professional Ethics	To acquire knowledge by performing advanced experiments related to digital, microcontroller and Programming through C language for solving Problems by numerical methods.
16.	P18PWP415 / P21PHPW415	PROJECT	Professional Ethics	To develop scientific outlook and familiarity with the processes and methods of research
17.	P18PH2EC2:1	Experimental Techniques and Instrumentation	Professional Ethics	To learn various concepts of experimental techniques and data analysis.
18.	P18PH3EC3:1/ P21PH3MBE3: 1	Communication Electronics	Professional Ethics	To know about the principles and theories of signal transmission and reception systems
19.	P18PH4EC4:1	Crystal Growth, Thin film and Nanoscience	Professional Ethics	To understand the mechanism of crystal growth coating of thin films and synthesis of nanomaterials and the related characterization techniques.
20.	P21PH2SE2P	Document Preparation System – Latex (Theory)	Professional Ethics	To prepare a Latex document, to make scientific articles and project report.




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