



## P.K.R. ARTS COLLEGE FOR WOMEN

(An Autonomous Institution-Affiliated to Bharathiar University, Coimbatore)

Approved by Government of Tamil Nadu and Accredited by NAAC with 'A' Grade

Gobichettipalayam – 638 476, Erode District, Tamil Nadu, India Website:

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NAAC  
2<sup>nd</sup> Cycle

Criterion I  
Metric 1.1.1

**Courses focus on Global, National, Regional and Local Needs Academic Year: 2021-22**

Year of Syllabus Revision	Programme	Code	Title of the Course	Need				Description
				Local	Regional	National	Global	
2021-22	M.Sc	21PHP01	Classical Mechanics				✓	The aim is to provide the students, the knowledge and understanding of the fundamental concepts in the dynamics of system of particles, motion of rigid body, Lagrangian and Hamiltonian formulation of mechanics
2021-22	M.Sc	21PHP02	Mathematical Physics				✓	The aim is to provide the students firm foundation in various mathematical methods developed and used for understanding different Physics phenomena
2021-22	M.Sc	21PHP03	Quantum Mechanics - I				✓	The aim is to make the students to understand the concepts of Matrix formalism, learn the approximation methods and to know the Orbital and Spin angular momentum
2021-22	M.Sc	21PHP04	Numerical Methods & MATLAB Programming			✓		The aim is to provide the students to develop appropriate numerical abilities, prove results for various numerical root finding methods and to code various numerical methods in a modern computer language

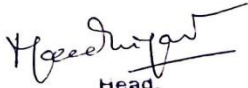
2021-22	M.Sc	21PHP05A	Essentials of Nanoscience				✓	The aim is to provide the basic knowledge about basics of nano science and technology and to acquire the knowledge about synthesis methods and characterization techniques and its applications
2021-22	M.Sc	21PHP05B	Radiation Physics				✓	The aim is to provide deeper knowledge and understanding of Radiation Physics and to learn information about their principles and methods
2021-22	M.Sc	21PHP06	Quantum Mechanics - II				✓	The aim is to make the students understand the Scattering theory, the applications to atomic structures, about the identical particles and their spin and quantum field theory
2021-22	M.Sc	21PHP07	Advanced Electronics				✓	The aim is to make the students to understand the concept of semiconductor devices, to gain knowledge about fabrication and characteristics of Integrated Circuits and to learn the concepts of advanced level of digital electronics
2021-22	M.Sc	21PHP08	Solar Physics				✓	The aim is to provide the students an overview of the energy problem faced by the current generation, underline the importance of renewable energy sources and to get a thorough knowledge about renewable solar energy technology

2021-22	M.Sc	21PHP09	Advanced Physics Practical-I				✓	The aim is to provide the students better practical knowledge of general Physics experiments, learn about handling of experiments and to know about different equipment used
2021-22	M.Sc	21PHP10	General Electronics Practical-I		✓			The aim is to provide the students better practical knowledge of general Physics experiments, learn about handling of experiments and to know about different equipment used
2021-22	M.Sc	21PHP11A	Astronomy & Astrophysics				✓	The aim is to provide the students deeper knowledge and understanding of astronomy, learn information about stars and galaxies and to know about the destruction of stars
2021-22	M.Sc	21PHP11B	Experimental Techniques			✓		The aim is to provide the students knowledge about the techniques behind various measuring instruments and to handle the various electronic measuring instruments
2021-22	M.Sc	21AEP01	Cyber Security				✓	The aim is to provide the students, the basics of cyber security and the security threats in day-to-day activities
2021-22	M.Sc	21PHP12	Atomic and Molecular Spectroscopy				✓	The aim is to provide the students, the skills and capability for formulating and analyzing chemical compounds using Atomic and Molecular Spectroscopy
2021-22	M.Sc	21PHP13	Nuclear & Particle Physics				✓	The aim is to provide the students, the concepts of Nucleus and elementary particles and to develop skills to find the binding energy, spin and parity values for various elements

2021-22	M.Sc	21PHP14	Electromagnetic Field Theory				✓	The aim is to provide the students, the theory for the fields produced by stationary and moving charges and charged systems and hence the propagation of electromagnetic fields
2021-22	M.Sc	21PHP15	Institutional Training	✓				To provide the students a deeper knowledge in Institutional training – creating a opportunity for the students
2021-22	M.Sc	21PHPOE1	Environmental Physics	✓				The aim is to provide the students to gain knowledge and understanding the Environmental Pollution and Control Techniques
2021-22	M.Sc	21PHP16A	Biomedical Instrumentation				✓	The aim is to provide the students, the working principles of medical instruments and Physics behind the instruments
2021-22	M.Sc	21PHP16B	Thin Film Physics and Crystal Growth				✓	The aim is to provide the students to gain knowledge and understanding the Environmental Pollution and Control Techniques
2021-22	M.Sc	21PEP01	Laser and its applications (Self –Study)			✓		The aim is to provide the students knowledge about Lasers, types of lasers available and its applications, in medical and industrial lines and train them to fabricate new models of lasers
2021-22	M.Sc	21PHP17	Condensed Matter Physics				✓	The aim is to provide students knowledge and understanding the Crystal structure and crystal defects and to advance skills for analyzing Heat capacity of the electron gas and Magnetism

2021-22	M.Sc	21PHP18	Thermodynamics and Statistical Mechanics				✓	The aim is to provide students a deeper knowledge and understanding of Thermodynamics, particle distribution and statistics
2021-22	M.Sc	21PHP19	Electronic Communication Systems				✓	The aim is to provide the students good understanding of radar systems and types of modulation used in electronic communication systems and the operation of different types of microwave devices
2021-22	M.Sc	21PHP20	Advanced Physics Practical-II				✓	The aim is to provide the students better practical knowledge of general Physics experiments, learn about handling of experiments and to know about different equipments used
2021-22	M.Sc	21PHP21	General Electronics Practical-II		✓			The aim of this course is to provide knowledge on the applications of Operational amplifier and to gain the practical hands on experience of programming the microprocessor and also gain knowledge on interfacing of different peripherals to microprocessor
2021-22	M.Sc	21PHP22	Project Work & Viva Voce				✓	The aim is to provide the student to acquire knowledge on synthesis, fabrication and evaluation on basis of day to day life scenario and to understand the Importance of undergone

2021-22	M.Sc	21PHP18	Thermodynamics and Statistical Mechanics				✓	The aim is to provide students a deeper knowledge and understanding of Thermodynamics, particle distribution and statistics
2021-22	M.Sc	21PHP19	Electronic Communication Systems				✓	The aim is to provide the students good understanding of radar systems and types of modulation systems used in electronic communication systems and the operation of different types of microwave devices
2021-22	M.Sc	21PHP20	Advanced Physics Practical-II				✓	The aim is to provide the students better practical knowledge of general Physics experiments, learn about handling of experiments and to know about different equipments used
2021-22	M.Sc	21PHP21	General Electronics Practical-II		✓			The aim of this course is to provide knowledge on the applications of Operational amplifier and to gain the practical hands on experience of programming the microprocessor and also gain knowledge on interfacing of different peripherals to microprocessor
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## Courses focus on Global, National, Regional and Local Needs Academic Year: 2020-21

Year of Syllabus Revision	Programme	Code	Title of the Course	Need				Description
				Local	Regional	National	Global	
2020-21	M.Sc	20PHP01	Classical Mechanics				✓	The aim is to provide the students, the knowledge and understanding of the fundamental concepts in the dynamics of system of particles, motion of rigid body, Lagrangian and Hamiltonian formulation of mechanics
2020-21	M.Sc	20PHP02	Mathematical Physics				✓	The aim is to provide the students firm foundation in various mathematical methods developed and used for understanding different Physics phenomena
2020-21	M.Sc	20PHP03	Quantum Mechanics - I				✓	The aim is to make the students to understand the concepts of Matrix formalism, learn the approximation methods and to know the Orbital and Spin angular momentum
2020-21	M.Sc	20PHP04	Numerical Methods & MATLAB Programming			✓		The aim is to provide the students to develop appropriate numerical abilities, prove results for various numerical root finding methods and to code various numerical methods in a modern computer language

2020-21	M.Sc	20PHP08A	Essentials of Nanoscience				✓	The aim is to provide the basic knowledge about basics of nanoscience and technology and to acquire the knowledge about synthesis methods and characterization techniques and its applications
2020-21	M.Sc	20PHP08B	Radiation Physics				✓	The aim is to provide deeper knowledge and understanding of Radiation Physics and to learn information about their principles and methods
2020-21	M.Sc	20PHP09	Quantum Mechanics - II				✓	The aim is to make the students understand the Scattering theory, the applications to atomic structures, about the identical particles and their spin and quantum field theory
2020-21	M.Sc	20PHP10	Advanced Electronics				✓	The aim is to make the students to understand the concept of semiconductor devices, to gain knowledge about fabrication and characteristics of Integrated Circuits and to learn the concepts of advanced level of digital electronics
2020-21	M.Sc	20PHP11	Solar Physics				✓	The aim is to provide the students an overview of the energy problem faced by the current generation, underline the importance of renewable energy sources and to get a thorough knowledge about renewable solar energy technology



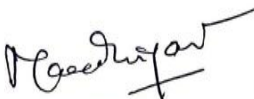
2020-21	M.Sc	20PHP06	Advanced Physics Practical-I				✓	The aim is to provide the students better practical knowledge of general Physics experiments, learn about handling of experiments and to know about different equipment used
2020-21	M.Sc	20PHP07	General Electronics Practical-I		✓			The aim is to provide the students better practical knowledge of general Physics experiments, learn about handling of experiments and to know about different equipment used
2020-21	M.Sc	20PHP13A	Astronomy & Astrophysics				✓	The aim is to provide the students deeper knowledge and understanding of astronomy, learn information about stars and galaxies and to know about the destruction of stars
2020-21	M.Sc	20PHP13B	Experimental Techniques			✓		The aim is to provide the students knowledge about the techniques behind various measuring instruments and to handle the various electronic measuring instruments
2020-21	M.Sc	20SEP01	Cyber Security				✓	The aim is to provide the students, the basics of cyber security and the security threats in day-to-day activities
2020-21	M.Sc	20PHP14	Atomic and Molecular Spectroscopy				✓	The aim is to provide the students, the skills and capability for formulating and analyzing chemical compounds using Atomic and Molecular Spectroscopy

2020-21	M.Sc	20PHP15	Nuclear Physics & Elementary Particles				✓	The aim is to provide the students, the concepts of Nucleus and elementary particles and to develop skills to find the binding energy, spin and parity values for various elements
2020-21	M.Sc	20PHP16	Electromagnetic Field Theory				✓	The aim is to provide the students, the theory for the fields produced by stationary and moving charges and charged systems and hence the propagation of electromagnetic fields
2020-21	M.Sc	20SEPPH2	Institutional Training	✓				To provide the students a deeper knowledge in Institutional training – creating a opportunity for the students
2020-21	M.Sc	20PHPOE1	Environmental Physics	✓				The aim is to provide the students to gain knowledge and understanding the Environmental Pollution and Control Techniques
2020-21	M.Sc	20PHP20A	Biomedical Instrumentation				✓	The aim is to provide the students, the working principles of medical instruments and Physics behind the instruments
2020-21	M.Sc	20PHP20B	Thin Film Physics and Crystal Growth				✓	The aim is to provide the students deeper knowledge and understanding of thin film technique, its application and understanding the purpose of characterization studies
2020-21	M.Sc	20PEPPH1	Laser and its applications (Self –Study)			✓		The aim is to provide the student the principles and applications of laser light and the Physics behind it

2020-21	M.Sc	20PHP21	Condensed Matter Physics				✓	The aim is to provide students knowledge and understanding the Crystal structure and crystal defects and to advance skills for analyzing Heat capacity of the electron gas and Magnetism
2020-21	M.Sc	20PHP22	Thermodynamics and Statistical Mechanics				✓	The aim is to provide students a deeper knowledge and understanding of Thermodynamics, particle distribution and statistics
2020-21	M.Sc	20PHP23	Electronic Communication Systems				✓	The aim is to provide the students good understanding of radar systems and types of modulation used in electronic communication systems and the operation of different types of microwave devices
2020-21	M.Sc	20PHP18	Advanced Physics Practical-II				✓	The aim is to provide the students better practical knowledge of general Physics experiments, learn about handling of experiments and to know about different equipments used
2020-21	M.Sc	20PHP19	General Electronics Practical-II		✓			The aim of this course is to provide knowledge on the applications of Operational amplifier and to gain the practical hands on experience of programming the microprocessor and also gain knowledge on interfacing of different peripherals to microprocessor

2020-21	M.Sc	20PHP25	Project Work & Viva Voce			✓		The aim is to provide the student to acquire knowledge on synthesis, fabrication and evaluation on basis of day to day life scenario and to understand the Importance of undergone
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2020-21	M.Sc	20PHP25	Project Work & Viva Voce			✓		The aim is to provide the student to acquire knowledge on synthesis, fabrication and evaluation on basis of day to day life scenario and to understand the Importance of undergone
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## Courses focus on Global, National, Regional and Local Needs Academic Year: 2019-20

Year of Syllabus Revision	Programme	Code	Title of the Course	Need				Description
				Local	Regional	National	Global	
2019-20	M.Sc	19PHP01	Classical Mechanics				✓	The aim is to provide the students, the knowledge and understanding of the fundamental concepts in the dynamics of system of particles, motion of rigid body, Lagrangian and Hamiltonian formulation of mechanics
2019-20	M.Sc	19PHP02	Mathematical Physics				✓	The aim is to provide the students firm foundation in various mathematical methods developed and used for understanding different Physics phenomena
2019-20	M.Sc	19PHP03	Quantum Mechanics - I				✓	The aim is to make the students to understand the concepts of Matrix formalism, learn the approximation methods and to know the Orbital and Spin angular momentum
2019-20	M.Sc	19PHP04	Numerical Methods & MATLAB Programming			✓		The aim is to provide the students to develop appropriate numerical abilities, prove results for various numerical root finding methods and to code various numerical methods in a modern computer language

2019-20	M.Sc	19PHP08A	Essentials of Nanoscience				✓	The aim is to provide the basic knowledge about basics of nanoscience and technology and to acquire the knowledge about synthesis methods and characterization techniques and its applications
2019-20	M.Sc	19PHP08B	Radiation Physics				✓	The aim is to provide deeper knowledge and understanding of Radiation Physics and to learn information about their principles and methods
2019-20	M.Sc	19PHP09	Quantum Mechanics - II				✓	The aim is to make the students understand the Scattering theory, the applications to atomic structures, about the identical particles and their spin and quantum field theory
2019-20	M.Sc	19PHP10	Advanced Electronics				✓	The aim is to make the students to understand the concept of semiconductor devices, to gain knowledge about fabrication and characteristics of Integrated Circuits and to learn the concepts of advanced level of digital electronics
2019-20	M.Sc	19PHP11	Solar Physics				✓	The aim is to provide the students an overview of the energy problem faced by the current generation, underline the importance of renewable energy sources and to get a thorough knowledge about renewable solar energy technology

2019-20	M.Sc	19PHP06	Advanced Physics Practical-I				✓	The aim is to provide the students better practical knowledge of general Physics experiments, learn about handling of experiments and to know about different equipment used
2019-20	M.Sc	19PHP07	General Electronics Practical-I		✓			The aim is to provide the students better practical knowledge of general Physics experiments, learn about handling of experiments and to know about different equipment used
2019-20	M.Sc	19PHP13A	Astronomy & Astrophysics				✓	The aim is to provide the students deeper knowledge and understanding of astronomy, learn information about stars and galaxies and to know about the destruction of stars
2019-20	M.Sc	19PHP13B	Experimental Techniques			✓		The aim is to provide the students knowledge about the techniques behind various measuring instruments and to handle the various electronic measuring instruments
2019-20	M.Sc	19SEP01	Cyber Security				✓	The aim is to provide the students, the basics of cyber security and the security threats in day-to-day activities
2019-20	M.Sc	19PHP14	Atomic and Molecular Spectroscopy				✓	The aim is to provide the students, the skills and capability for formulating and analyzing chemical compounds using Atomic and Molecular Spectroscopy

2019-20	M.Sc	19PHP15	Nuclear Physics & Elementary Particles				✓	The aim is to provide the students, the concepts of Nucleus and elementary particles and to develop skills to find the binding energy, spin and parity values for various elements
2019-20	M.Sc	19PHP16	Electromagnetic Field Theory				✓	The aim is to provide the students, the theory for the fields produced by stationary and moving charges and charged systems and hence the propagation of electromagnetic fields
2019-20	M.Sc	19SEPPH2	Industrial Training	✓				To provide the students a deeper knowledge in Industrial training – creating a opportunity for the students
2019-20	M.Sc	19PHPOE1	Concepts of Electrical Appliances	✓				The aim is to provide the students knowledge and understanding of the fundamental concepts in Physics
2019-20	M.Sc	19PHP20A	Biomedical Instrumentation				✓	The aim is to provide the students, the working principles of medical instruments and Physics behind the instruments
2019-20	M.Sc	19PHP20B	Thin Film Physics and Crystal Growth				✓	The aim is to provide the students deeper knowledge and understanding of thin film technique, its application and understanding the purpose of characterization studies
2019-20	M.Sc	19PEPPH1	Laser and its applications (Self –Study)			✓		The aim is to provide the student the principles and applications of laser light and the Physics behind it



2019-20	M.Sc	19PHP21	Condensed Matter Physics				✓	The aim is to provide students knowledge and understanding the Crystal structure and crystal defects and to advance skills for analyzing Heat capacity of the electron gas and Magnetism
2019-20	M.Sc	19PHP22	Thermodynamics and Statistical Mechanics				✓	The aim is to provide students a deeper knowledge and understanding of Thermodynamics, particle distribution and statistics
2019-20	M.Sc	19PHP23	Electronic Communication Systems				✓	The aim is to provide the students good understanding of radar systems and types of modulation used in electronic communication systems and the operation of different types of microwave devices
2019-20	M.Sc	19PHP18	Advanced Physics Practical-II				✓	The aim is to provide the students better practical knowledge of general Physics experiments, learn about handling of experiments and to know about different equipments used
2019-20	M.Sc	19PHP19	General Electronics Practical-II		✓			The aim of this course is to provide knowledge on the applications of Operational amplifier and to gain the practical hands on experience of programming the microprocessor and also gain knowledge on interfacing of different peripherals to microprocessor

2019-20	M.Sc	19PHP25	Project Work & Viva Voce			✓		The aim is to provide the student to acquire knowledge on synthesis, fabrication and evaluation on basis of day to day life scenario and to understand the Importance of undergone
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2019-20	M.Sc	19PHP25	Project Work & Viva Voce			✓		The aim is to provide the student to acquire knowledge on synthesis, fabrication and evaluation on basis of day to day life scenario and to understand the Importance of undergone
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## Courses focus on Global, National, Regional and Local Needs Academic Year: 2018-19

Year of Syllabus Revision	Programme	Code	Title of the Course	Need				Description
				Local	Regional	National	Global	
2018-19	M.Sc	18PHP01	Classical Mechanics				✓	The aim is to provide the students, the knowledge and understanding of the fundamental concepts in the dynamics of system of particles, motion of rigid body, Lagrangian and Hamiltonian formulation of mechanics
2018-19	M.Sc	18PHP02	Mathematical Physics				✓	The aim is to provide the students firm foundation in various mathematical methods developed and used for understanding different Physics phenomena
2018-19	M.Sc	18PHP03	Quantum Mechanics - I				✓	The aim is to make the students to understand the concepts of Matrix formalism, learn the approximation methods and to know the Orbital and Spin angular momentum
2018-19	M.Sc	18PHP04	Numerical Methods & MATLAB Programming			✓		The aim is to provide the students to develop appropriate numerical abilities, prove results for various numerical root finding methods and to code various numerical methods in a modern computer language

2018-19	M.Sc	18PHP08A	Essentials of Nanoscience				✓	The aim is to provide the basic knowledge about basics of nanoscience and technology and to acquire the knowledge about synthesis methods and characterization techniques and its applications
2018-19	M.Sc	18PHP08B	Radiation Physics				✓	The aim is to provide deeper knowledge and understanding of Radiation Physics and to learn information about their principles and methods
2018-19	M.Sc	18PHP09	Quantum Mechanics - II				✓	The aim is to make the students understand the Scattering theory, the applications to atomic structures, about the identical particles and their spin and quantum field theory
2018-19	M.Sc	18PHP10	Advanced Electronics				✓	The aim is to make the students to understand the concept of semiconductor devices, to gain knowledge about fabrication and characteristics of Integrated Circuits and to learn the concepts of advanced level of digital electronics
2018-19	M.Sc	18PHP11	Solar Physics				✓	The aim is to provide the students an overview of the energy problem faced by the current generation, underline the importance of renewable energy sources and to get a thorough knowledge about renewable solar energy technology

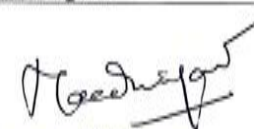
2018-19	M.Sc	18PHP06	Advanced Physics Practical-I				✓	The aim is to provide the students better practical knowledge of general Physics experiments, learn about handling of experiments and to know about different equipment used
2018-19	M.Sc	18PHP07	General Electronics Practical-I		✓			The aim is to provide the students better practical knowledge of general Physics experiments, learn about handling of experiments and to know about different equipment used
2018-19	M.Sc	18PHP13A	Astronomy & Astrophysics				✓	The aim is to provide the students deeper knowledge and understanding of astronomy, learn information about stars and galaxies and to know about the destruction of stars
2018-19	M.Sc	18PHP13B	Experimental Techniques			✓		The aim is to provide the students knowledge about the techniques behind various measuring instruments and to handle the various electronic measuring instruments
2018-19	M.Sc	18SEPPH1	Cyber Security				✓	The aim is to provide the students, the basics of cyber security and the security threats in day-to-day activities
2018-19	M.Sc	18PHP14	Atomic and Molecular Spectroscopy				✓	The aim is to provide the students, the skills and capability for formulating and analyzing chemical compounds using Atomic and Molecular Spectroscopy

2018-19	M.Sc	18PHP15	Nuclear Physics & Elementary Particles				✓	The aim is to provide the students, the concepts of Nucleus and elementary particles and to develop skills to find the binding energy, spin and parity values for various elements
2018-19	M.Sc	18PHP16	Electromagnetic Field Theory				✓	The aim is to provide the students, the theory for the fields produced by stationary and moving charges and charged systems and hence the propagation of electromagnetic fields
2018-19	M.Sc	18SEPPH2	Industrial Training	✓				To provide the students a deeper knowledge in Industrial training – creating a opportunity for the students
2018-19	M.Sc	18PHPCO1	Concepts of Electrical Appliances	✓				The aim is to provide the students knowledge and understanding of the fundamental concepts in Physics
2018-19	M.Sc	18PHP20A	Biomedical Instrumentation				✓	The aim is to provide the students, the working principles of medical instruments and Physics behind the instruments
2018-19	M.Sc	18PHP20B	Thin Film Physics and Crystal Growth				✓	The aim is to provide the students deeper knowledge and understanding of thin film technique, its application and understanding the purpose of characterization studies
2018-19	M.Sc	18PEPPH1	Laser and its applications (Self –Study)			✓		The aim is to provide the student the principles and applications of laser light and the Physics behind it

2018-19	M.Sc	18PHP21	Condensed Matter Physics				✓	The aim is to provide students knowledge and understanding the Crystal structure and crystal defects and to advance skills for analyzing Heat capacity of the electron gas and Magnetism
2018-19	M.Sc	18PHP22	Thermodynamics and Statistical Mechanics				✓	The aim is to provide students a deeper knowledge and understanding of Thermodynamics, particle distribution and statistics
2018-19	M.Sc	18PHP23	Electronic Communication Systems				✓	The aim is to provide the students good understanding of radar systems and types of modulation used in electronic communication systems and the operation of different types of microwave devices
2018-19	M.Sc	18PHP18	Advanced Physics Practical-II				✓	The aim is to provide the students better practical knowledge of general Physics experiments, learn about handling of experiments and to know about different equipments used
2018-19	M.Sc	18PHP19	General Electronics Practical-II		✓			The aim of this course is to provide knowledge on the applications of Operational amplifier and to gain the practical hands on experience of programming the microprocessor and also gain knowledge on interfacing of different peripherals to microprocessor

2018-19	M.Sc	18PHP25	Project Work & Viva Voce			✓		The aim is to provide the student to acquire knowledge on synthesis, fabrication and evaluation on basis of day to day life scenario and to understand the Importance of undergone
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2018-19	M.Sc	18PHP25	Project Work & Viva Voce			✓		The aim is to provide the student to acquire knowledge on synthesis, fabrication and evaluation on basis of day to day life scenario and to understand the Importance of undergone
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## Courses focus on Global, National, Regional and Local Needs Academic Year: 2017-18

Year of Syllabus Revision	Programme	Code	Title of the Course	Need				Description
				Local	Regional	National	Global	
2017-18	M.Sc	17PHP01	Classical Mechanics				✓	To gain deeper knowledge and understanding of classical mechanics To advance skills and capability for formulating and solving problems To increase mathematical and computational sophistication
2017-18	M.Sc	17PHP02	Mathematical Physics				✓	To gain deeper knowledge and understanding of Mathematical Physics. To advance skills and capability for formulating and solving problems. Provide basic skills necessary for the application of Mathematical method in Physics
2017-18	M.Sc	17PHP03	Quantum Mechanics - I				✓	The aim is to provide the student To understand the concepts of Matrix formalism. To learn the approximation methods. To know the Orbital and Spin angular momentum
2017-18	M.Sc	17PHP04	Advanced Computational Physics			✓		To gain deeper knowledge and understanding of mathematical operations. To advance skills and capability for formulating and solving problems. Provide basic skills necessary for the application of mathematical method in Physics

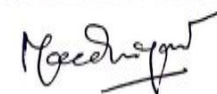
2017-18	M.Sc	17PHP07A	Elements of Nanoscience and Nanotechnology				✓	To gain deeper knowledge and understanding of nanoscience. To learn information about nanomaterials and methods of synthesis. To know about the applications of nanomaterials.
2017-18	M.Sc	17PHP07B	Physics of Non-conventional Energy Resources				✓	To gain deeper knowledge and understanding of non-conventional energy resources To provide a detail about renewable energy sources.
2017-18	M.Sc	17PHP08	Quantum Mechanics - II				✓	The aim is to make the students understand the Scattering theory, applications to atomic and molecular structures, about the identical particles and their spin and quantum field theory
2017-18	M.Sc	17PHP09	Advanced Electronics				✓	To understand the concept of semiconductor devices. To gain knowledge about Fabrication and Characteristics of Integrated Circuits. To learn the concepts of advanced level of digital electronics
2017-18	M.Sc	17PHP10	Solar Physics				✓	To give an overview of the energy problem faced by the current generation To underline the importance of renewable energy sources To give a thorough knowledge about renewable solar energy technology
2017-18	M.Sc	17PHP05	Advanced Physics Practical-I				✓	To gain better practical knowledge of general physics experiments To learn about handling of experiments To know about different equipments used.

2017-18	M.Sc	17PHP06	General Electronics Practical-I		✓			The aim is to provide the students better practical knowledge of general Physics experiments, learn about handling of experiments and to know about different equipment used
2017-18	M.Sc	17PHP11A	Astronomy & Astrophysics				✓	To gain deeper knowledge and understanding of astronomy. To learn information about stars and galaxies. To know about the destruction of stars
2017-18	M.Sc	17PHP11B	Experimental Techniques			✓		To gain deeper knowledge and understand the techniques behind various measuring instruments. Ability to measure frequency with oscilloscope. Ability to handle the various electronic measuring instruments
2017-18	M.Sc	17SEPPH1	Cyber Security				✓	To understand the basics of cyber security and the security threats in day-to-day activities
2017-18	M.Sc	17PHP13	Atomic and Molecular Spectroscopy				✓	The aim is to provide the students, the skills and capability for formulating and analyzing chemical compounds using Atomic and Molecular Spectroscopy
2017-18	M.Sc	17PHP14	Nuclear Physics & Elementary Particles				✓	The aim is to provide the students, the concepts of Nucleus and elementary particles and to develop skills to find the binding energy, spin and parity values for various elements

2017-18	M.Sc	17PHP15	Electromagnetic Field Theory				✓	The aim is to provide the students, the theory for the fields produced by stationary and moving charges and charged systems and hence the propagation of electromagnetic fields
2017-18	M.Sc	17SEPPH2	Industrial Training	✓				To provide the students a deeper knowledge in Industrial training – creating a opportunity for the students
2017-18	M.Sc	17PHPCO1	Concepts of Electrical Appliances	✓				The aim is to provide the students knowledge and understanding of the fundamental concepts in Physics
2017-18	M.Sc	17PHP19A	Biomedical Instrumentation				✓	The aim is to provide the students, the working principles of medical instruments and Physics behind the instruments
2017-18	M.Sc	17PHP19B	Thin Film Physics and Crystal Growth				✓	The aim is to provide the students deeper knowledge and understanding of thin film technique, its application and understanding the purpose of characterization studies
2017-18	M.Sc	17PEPPH1	Laser and its applications (Self –Study)			✓		The aim is to provide the student the principles and applications of laser light and the Physics behind it
2017-18	M.Sc	17PHP20	Condensed Matter Physics				✓	The aim is to provide students knowledge and understanding of the Crystal structure and crystal defects and to advance skills for analyzing Heat capacity of the electron gas and Magnetism
2017-18	M.Sc	17PHP21	Thermodynamics and Statistical Mechanics				✓	The aim is to provide students a deeper knowledge and understanding of Thermodynamics, particle distribution and statistics

2017-18	M.Sc	17PHP22	Electronic Communication Systems				✓	The aim is to provide the students good understanding of radar systems and types of modulation used in electronic communication systems and the operation of different types of microwave devices
2017-18	M.Sc	17PHP17	Advanced Physics Practical-II				✓	The aim is to provide the students better practical knowledge of general Physics experiments, learn about handling of experiments and to know about different equipments used
2017-18	M.Sc	17PHP18	General Electronics Practical-II		✓			The aim of this course is to provide knowledge on the applications of Operational amplifier and to gain the practical hands on experience of programming the microprocessor and also gain knowledge on interfacing of different peripherals to microprocessor
2017-18	M.Sc	17PHP24	Project Work & Viva Voce				✓	The aim is to provide the student to acquire knowledge on synthesis, fabrication and evaluation on basis of day to day life scenario and to understand the Importance of undergone

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P.K.R. Arts College for Women,  
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