Mohanlal Sukhadia University, Udaipur

M.Sc. Physics (CBCS) Programme

(valid from session 2017-18 onwards)

COURSE STRUCTURE

CORE PAPERS

Paper code	Paper Name
M1PHY01-CT01	Mathematical Methods in Physics
M1PHY02-CT02	Classical Mechanics
M1PHY03-CT03	Quantum Mechanics-I
M1PHY04-CT04	Electronics
M2PHY01-CT05	Computational Methods in Physics
M2PHY02-CT06	Quantum Mechanics-II
M2PHY03-CT07	Statistical Mechanics
M2PHY04-CT08	Electrodynamics
M3PHY01-CT09	Atomic and Molecular Physics
M3PHY02-CT10	Solid State Physics
M4PHY01-CT11	Nuclear and Particle Physics
M4PHY02-CT12	Experimental Techniques in Physics
M1PHY05-CP01	General Physics Laboratory
M1PHY06-CP02	Electronics Laboratory
M2PHY05-CP03	Electronics and Microprocessor Projects
M2PHY06-CP04	Computational Physics Laboratory
M3PHY05-CP05	Data Analysis Techniques in Experimental Physics
M4PHY05-CP06	Modern Physics Laboratory

Discipline Specific Electives

Paper code	Paper Name
M3PHY03-ET01A	Radiation Physics
M3PHY03-ET01B	Plasma Physics
M3PHY03-ET01C	Theoretical Methods in Condensed Matter Physics
M3PHY04-ET02A	Industrial Electronics
M3PHY04-ET02B	Data and Computer Communications
M3PHY04-ET02C	Programming Using Java
M3PHY04-ET02D	Semiconductor Physics and Devices
M4PHY03-ET03A	Fundamentals of Nanoscience
M4PHY03-ET03B	Atmospheric Physics
M4PHY03-ET03C	Microwave Electronics

M4PHY04-ET04A	Materials Science
M4PHY04-ET04B	Ionosphere Physics
M4PHY04-ET04C	Astronomy & Astrophysics
M3PHY06-EP01X	Practical-I
M3PHY06-EP01P	Project Work
M4PHY04-EP0XX	Practical-II
M4PHY04-EP02P	Project work

NOTE : A candidate selecting EP01P cannot select elective EP02P and vice versa

SKILL ENHANCEMENT PAPERS

(Note : The student should opt for different skill enhancement paper in different semesters, X stands for the number of the skill paper. For example, if communication skills in English is the first skill enhancement paper opted by a student, the code would be SP01E and if Programming in C is the second paper opted by the same student in another semester, the code would be SP02F)

Paper code	**Paper Name**
SP0XA	Laboratory Instrumentation
SP0XB	Computer Hardware Maintenance
SP0XC	Vacuum Techniques
SP0XD	Materials Preparation
SP0XE	Communication Skills in English
SP0XF	Programming in C

SEMESTER WISE DETAILS OF COURSES OFFERED

Paper No.	Course	Course Name	No. of Credits	Max. Marks		
				Ext.	Int.	Total
SEMESTER-I						
M1PHY01-CT01	I	Mathematical Methods in Physics	4	80	20	100
M1PHY02-CT02	II	Classical Mechanics	4	80	20	100
M1PHY03-CT03	III	Quantum Mechanics-I	4	80	20	100
M1PHY04-CT04	IV	Electronics	4	80	20	100
M1PHY05-CP01	V	General Physics Laboratory	4	80	20	100
M1PHY06-CP02	VI	Electronics Laboratory	4	80	20	100
Total			**24**	**480**	**120**	**600**
SEMESTER-II						
M2PHY01-CT05	I	Computational Methods in Physics	4	80	20	100
M2PHY02-CT06	II	Quantum Mechanics-II	4	80	20	100
M2PHY03-CT07	III	Statistical Mechanics	4	80	20	100
M2PHY04-CT08	IV	Electrodynamics	4	80	20	100
M2PHY05-CP03	V	Electronics and Microprocessor Projects	4	80	20	100
M2PHY06-CP04	VI	Computational Physics Laboratory	4	80	20	100
M2PHY07-SP01X	VII-X	Skill Enhancement Course-I	2	80	20	100
Total			**26**	**560**	**140**	**700**
SEMESTER-III						
M3PHY01-CT09	I	Atomic and Molecular Physics	4	80	20	100
M3PHY02-CT10	II	Solid State Physics	4	80	20	100
M3PHY03-ET01X	III-X	Discipline Specific Elective-I	4	80	20	100
M3PHY04-ET02X	IV-X	Discipline Specific Elective-II	4	80	20	100
M3PHY05-CP05	V	Data Analysis Techniques in Experimental Physics	4	80	20	100
M3PHY06-EP01X OR M3PHY06-EP01P	VI-X	Elective Practical-I OR PROJECT WORK	4	80	20	100

Total			**24**	**480**	**120**	**600**
SEMESTER IV						
M4PHY01-CT11	I	Nuclear and Particle Physics	4	80	20	100
M4PHY02-CT12	II	Experimental Techniques in Physics	4	80	20	100
M4PHY03-ET03X	III-X	Discipline Specific Elective-III	4	80	20	100
M4PHY04-ET04X	IV-X	Discipline Specific Elective-IV	4	80	20	100
M4PHY05-CP06	V	Modern Physics Laboratory	4	80	20	100
M4PHY06-EP0XX OR M4PHY06-EP02P	VI-X	Elective Practical-II OR PROJECT WORK	4	80	20	100
M4PHY07-SP02X	VII-X	Skill Course-II	2	80	20	100
Total			**26**	**560**	**140**	**700**
Grand Total			**100**	**1960**	**640**	**2600**