

Programmes Offered

Undergraduate Programme (CBCS-UG-2020)			
Programme	Duration	Eligibility	Intake
B. Sc. Physics with Complementary: Mathematics and Chemistry	6 semesters	+2 Science group or its equivalent	32

Postgraduate Programme (CBCS-PG-2020)			
Programme	Duration	Eligibility	Intake
M. Sc. Physics	4 semesters	B.Sc. with Physics as Main/Core	12

Add-on course offered by Physics Department in 2019-20			
Course	Duration	Tie Up	Course Details
Certificate Course in Matlab	300 Hours	RUSA	The pre -requisite for joining the Certificate course is a pass in Higher Secondary School Examination or equivalent.
Certificate Course in Robotics & Automation	48 Hours	RUSA	Both B. Sc & M. Sc students can join the course. Students will be taught to build and program robots according to a specific curriculum.

Structure of B. Sc Physics under UG-CBCS-2019

Semester	Title of the Course	Hours/week	Credits	Total hrs	Exam Duration	Marks	
						IS A	ES A
1	English I	5	4	90	3	20	80
	English II/ Common Course I	4	3	72	3	20	80
	Second Language I	4	4	72	3	20	80
	MPH1CRT01 - Methodology and Perspectives of Physics	2	2	36	3	15	60
	Complementary I: Mathematics I	4	3	72	3	20	80
	Complementary II: Chemistry I	2	2	36	3	15	60
	Core Practical I: MPH2CRP01 Mechanics and Properties of Matter	2	-	36	-	-	-
	Complementary II Practical I	2	-	36	-	-	-
2	English II	5	4	90	3	20	80
	English III/ Common Course II	4	3	72	3	20	80
	Second Language II	4	4	72	3	20	80
	MPH2CRT01 - Mechanics and Properties of Matter	2	2	36	3	15	60
	Complementary I: Mathematics II	4	3	72	3	20	80
	Complementary II: Chemistry II	2	2	36	3	15	60
	Core Practical I: MPH2CRP01 Mechanics and Properties of Matter	2	2	36	3	10	40
	Complementary II Practical I	2	2	36	3	10	40

				6			
3	English III	5	4	90	3	20	80
	II Lang/Common Course I	5	4	90	3	20	80
	MPH3CRT01 – Optics, Laser and Fiber Optics	3	3	54	3	15	60
	Complementary I: Mathematics III	5	4	90	3	20	80
	Complementary II: Chemistry III	3	3	54	3	15	60
	Core Practical II: MPH4CRP01 Optics and Semiconductor Physics	2	-	36	-	-	-
	Complementary II Practical II	2	-	36	-	-	-
4	English IV	5	4	90	3	20	80
	II Lang/ Common Course II	5	4	90	3	20	80
	MPH4CRT01 - Semiconductor Physics	3	3	54	3	15	60
	Complementary I – Mathematics IV	5	4	90	3	20	80
	Complementary II: Chemistry IV	3	3	54	3	15	60
	Core Practical II: MPH4CRP01 Optics and Semiconductor Physics	2	2	36	3	10	40
	Complementary II Practical II	2	2	36	3	10	40
5	MPH5CRT01 – Electricity and Electrodynamics	3	3	54	3	15	60
	MPH5CRT02 – Classical and Quantum Mechanics	3	3	54	3	15	60
	MPH5CRT03–Digital Electronics and Programming	3	3	54	3	15	60
	MPH5CRT04– Environmental Physics and Human Rights	4	4	72	3	15	60
	MPH5OPT01-Open Course-Our Universe	4	3	72	3	20	80
	Core Practical III: MPH6CRP03 Electricity, Magnetism and Laser	2	-	36	-	-	-

	Core Practical IV: MPH6CRP04 Digital Electronics	2	-	36	-	-	-
	Core Practical V: MPH6CRP05 Thermal Physics, Spectroscopy and C++ programming	2	-	36	-	-	-
	Core Practical VI: MPH6CRP06 Acoustics, Photonics and Advanced Semiconductor Physics	2	-	36	-	-	-
6	MPH6CRT01 - Thermal and Statistical Physics	3	3	54	3	15	60
	MPH6CRT02 --Relativity and Spectroscopy	4	3	72	3	15	60
	MPH6CRT03- Nuclear, Particle and Astrophysics	3	3	54	3	15	60
	MPH6CRT04 - Solid State Physics	4	3	72	3	15	60
	MPH6CBT02-Choice Based Course-Material Science	3	3	54	3	20	80
	Core Practical III: MPH6CRP03 Electricity, Magnetism and Laser	2	2	36	3	10	40
	Core Practical IV: MPH6CRP04 Digital Electronics	2	2	36	3	10	40
	Core Practical V: MPH6CRP05 Thermal Physics, Spectroscopy and C++ programming	2	2	36	3	10	40
	Core Practical VI: MPH6CRP06 Acoustics, Photonics and Advanced Semiconductor Physics	2	2	36	3	10	40
	MPH6PRP01 - Project and Industrial Visit	-	1	-	-	20	8 0

Structure of M Sc Physics under PG-CSS 2019

Semester	Course Code	Name of the courses	No of hrs / week	Credits
I	PG19PH101	Mathematical methods in Physics - I	3	3
	PG19PH102	Classical Mechanics	4	4
	PG19PH103	Electrodynamics	4	4
	PG19PH104	Electronics	4	4
	PGPH2P1	General Physics Practicals	10	4
		Total for Semester 1	25	19
II	PG19PH205	Mathematical methods in Physics - II	4	4
	PG19PH206	Quantum Mechanics - I	3	4
	PG19PH207	Statistical Mechanics	4	4
	PG19PH208	Condensed Matter Physics	4	4
	PGPH2P2	Electronics Practical	10	4
		Total for Semester 2	25	20
III	PG19PH309	Quantum Mechanics - II	4	4
	PG19PH310	Computational Physics	4	4
	PG19PH311	Atomic and Molecular Physics	4	4
	PG19PH312	Elective - 1-Digital Signal Processing	3	3
	PGPH4P1	Advanced Practical in Electronics	10	5

		Total for Semester 3	25	20
I V	PG19PH4 13	Nuclear and Particle Physics	5	4
	PG19PH4 14	Elective - 2-Microelectronics and semiconductor devices	5	3
	PG19PH4 15	Elective - 3-Communication system	5	3
	PGPH4P2	Computational Physics Practical	10	4
	PGPH4P	Project	-	5
	PGPH4V	Comprehensive viva voce	-	2
		Total for Semester 4	25	21
		Grand Total		80

