Master of Science (MSc) in Physics at IIT Ropar

Semester-I

Sr. No.	Course Code	Course Title	L-T-P-S-C	Credits
1	PH411	Classical Mechanics	3-1-0-5-4	4
2	PH412	Mathematical Physics	3-1-0-5-4	4
3	PH413	Quantum Mechanics	3-1-0-5-4	4
4	PH414	Computational Physics	2-0-6-7-5	5
5	PH415	Electronics	3-1-0-5-4	4
6	PH410	Physics Lab - I	0-0-4-2-2	2
			Total	23

Semester - II

Sr No.	Course Code	Course Title	L-T-P-S-C	Credits
1	PH421	Electrodynamics	3-1-0-5-4	4
2	PH422	Statistical Mechanics	3-1-0-5-4	4
3	PH42*	Basket Course - I	3-1-0-5-4	4
4	PH42*	Basket Course - II	3-1-0-5-4	4
5	PH42*	Basket Course - III	3-1-0-5-4	4
6	PH423	Physics Lab - II	0-0-6-3-3	3
7	PH424	Physics Lab - III	0-0-4-2-2	2
			Total	25

Semester - III

Sr. No.	Course Code	Course Title	L-T-P-S-C	Credits
1	PH511	Research Methodology & Scientific Communication	3-0-0-6-3	3
2	*****	M.Sc. Elective – I	3-0-0-6-3	3
3	*****	M.Sc. Elective – II	3-0-0-6-3	3
4	*****	M.Sc. Elective – III	3-0-0-6-3	3
5	*****	M.Sc. Elective – IV	3-0-0-6-3	3
6	PH699	M.Sc. Project – I	0-0-6-3-3	3
			Total	18

Semester - IV

Sr. No.	Course Code	Course Title	L-T-P-S-C	Credits
1	*****	MSc Elective - V	3-0-0-6-3	3
2	*****	M.Sc. Elective - VI	3-0-0-6-3	3
3	*****	M.Sc. Elective - VII	3-0-0-6-3	3
4	PH799	M.Sc. Project - II	0-0-18-9-9	9
			Total	18

Total Credits: 84

Minimum CGPA to qualify for MSc degree: 5.0

- One year exit option with Postgraduate Diploma in Physics
- Out of the 7 elective courses, at least 2 must be program electives offered by the Department of Physics. The remaining 5 electives can be open electives from any department.

List of Basket courses:

1. PH425 Optics and Photonics
2. PH426 Condensed Matter Physics
3. PH427 Nuclear and Particle Physics
4. PH428 Atomic and Molecular Physics