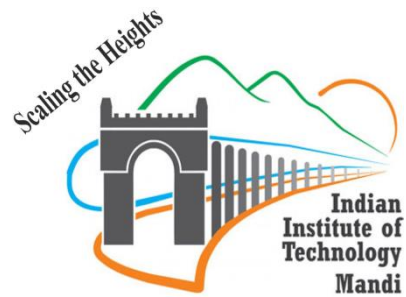


Master of Science in Physics



Programme Level	Post Graduate
Year of Commencement	2017
Minimum Duration	2 Years (4 Semesters)
Maximum Duration	3 Years (6 Semesters)
Senate Meeting Reference	12.3/18.5

Preamble:

M SC in Physics program is a two year degree program and is designed for bright and young minds to pursue higher studies in physics at IIT Mandi. Candidates who have qualified for the award of a three/four year Bachelor degree (B.Sc. or equivalent, after 10+2 or equivalent schooling) with Physics and Mathematics as two of the subjects, from a recognized university or Institute with at least 55 % marks (or 6.0 CGPA on a scale 10), are eligible to apply for admission to the program. Students admitted to this degree program are regular full time student and required to stay in campus and to participate and complete all requirements of the program. On successful completion, students will be awarded Master of Science (M.Sc.) in Physics from IIT Mandi.

Description of the Program

All students admitted to this program will undergo coursework similar to that typically covered in a high quality M.Sc. program at reputed institution in India. The M Sc (Physics) program will have courses that cover both fundamental and advanced areas of physics and has the aim of training the student to be capable of working in frontier areas of science and technology. Besides studying theoretical and experimental courses, the student will also be exposed to working in a project environment as a part of this degree program. In addition, the student will have the option of taking courses in interdisciplinary areas. Several elective courses are available to the students to build a strong foundation in the area of their research interest. Award of the M.Sc. in Physics degree shall be in accordance with the regulation of the Senate in relation to the requirements of the given program. For admission to M.Sc. program under regular category, the concerned School shall adopt qualifying criteria for short-listing and selection for all the categories.

Features of the M Sc program:

The minimum durations for M.Sc. is of two years and maximum three years for special cases. The minimum required course credits for this program is 80 credits. Letter grades will be used in evaluation of performance of students in all academic activities for which they have registered in a semester for a degree program. To help students in planning their courses of study and for getting general advice on the academic program, a faculty member as a Faculty Advisor will be taking care for the group of students. The execution of the courses offered under M.Sc. program will be monitored by the class committee. A student must maintain a minimum CGPA of 5.0 for M.Sc., to continue the program. There is also a provision for meritorious students to convert from M.Sc. to Ph.D program. The criteria and terms and conditions will be formulated by the concerned school with prior approvals by the Senate.

Courses and Credits for M. Sc. (Physics) Program

1st Semester

Code	Course Title	Credit (L-T-P-C)	Remarks
PH 511	Mathematical Physics	4-0-0-4	C
PH 512	Classical Mechanics	4-0-0-4	C
PH 513	Quantum Mechanics	3-0-0-3	C
PH 514	Electronics	3-0-0-3	C
PH 515P	Physics Laboratory	0-0-5-3	C
	Technical Communications	1-0-0-1	C
	Elective (Outside Discipline)	3-0-0-3	E1
	Total credits	21	

2nd Semester

Code	Course Title	Credit (L-T-P-C)	Remarks
PH 521	Electromagnetic Theory	4-0-0-4	C
PH 522	Statistical Mechanics	4-0-0-4	C
PH 523	Cond. Matter Physics	3-0-0-3	C
PH 524	Atom. Mol. Physics	3-0-0-3	C
PH 525P	Electronics Lab. Pract.	0-0-5-3	C
	Elective	3-0-0-3	E2
	Total credits	20	

3rd Semester

Code	Course Title	Credit (L-T-P-C)	Remarks
PH 611P	Exp. Res. Techniques	0-0-7-4	C
PH 614	Seminar and Report	0-0-4-2	C
PH 613	Spe. Topics. in QM	3-0-0-3	C
PH 518P	Post Graduate Project-1	0-0-6-3	C
	Elective	3-0-0-3	E3
	Elective	3-0-0-3	E4
	Elective-5 (Outside Discipline)	3-0-0-3	E5
	Total credits	21	

4th Semester

Code	Course Title	Credit (L-T-P-C)	Remarks
PH 621	Comput. Meth. Physics	2-0-4-4	C
PH 519P	Post Graduate Project-2	0-0-16-8	C
	Elective	3-0-0-3	E6
	Elective	3-0-0-3	E7
	Total credits	18	

M.Sc. (Physics): Total: 35 (T) + 10 (L) + 13 (R) + 21 (E) + 1 (TC) = 80 Credits