

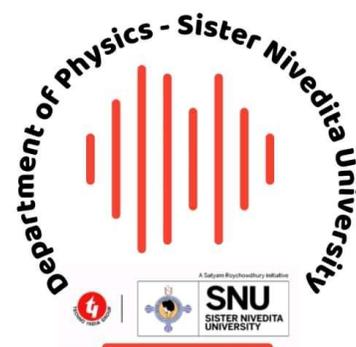


2020

SYLLABUS

School of Natural Sciences

M.Sc. in Physics
under UGC – CBCS



M.Sc. Physics Course Structure

Category definition with credit breakup

Semester	Credit					
	CC	DSE	GE	SEC	USC	Total/Sem
First	20		4	1	2	27
Second	20	4		1	2	27
Third	20	4		1	2	27
Fourth	12				2	14
Total Credit/ Course	72	8	4	3	8	
Total Credit						95

CC: Core Courses; GE: General Elective; SEC: Skill Enhancement Courses;
DSE: Discipline Specific Elective; USC: University specified course

First Year

Category	Course name	Credit	Teaching Scheme		
			L	T	P
Semester – I					
CC – 1	Mathematical Methods	4	3	1	0
CC – 2	Classical Mechanics	4	3	1	0
CC – 3	Quantum Mechanics	4	3	1	0
CC – 4	Statistical Mechanics	4	3	1	0
CC – 5	General Lab	4	0	0	8
GE - 1	Generic Elective	4	4	0	0
USC – 1	Foreign language – I	2	2	0	0
SEC – 1	Mentored Seminar – I	1	1	0	0
Total Credit = 27			Teaching Hour = 31		
Semester – II					
CC – 6	Quantum Mechanics and Quantum Computation	4	3	1	0
CC – 7	Electrodynamics	4	3	1	0
CC – 8	Condensed Matter Physics	4	3	1	0
CC – 9	General Lab	4	3	1	0
CC – 10	Numerical Lab	4	0	0	8
DSE – 1	Applied Maths/Biophysics	4	3	1	0
USC – 2	Foreign language – II	2	2	0	0
SEC – 2	Mentored Seminar – II	1	1	0	0
Total Credit = 27			Teaching Hour = 31		

Second Year

Category	Course name	Credit	Teaching Scheme		
			L	T	P
Semester – III					
CC – 11	Quantum Field Theory and Particle Physics	4	3	1	0
CC – 12	Atomic, Molecular and Laser Physics	4	3	1	0
CC – 13	Electronics	4	3	1	0
CC – 14	Astrophysics / Solar and Space Plasma Physics	4	3	1	0
CC – 15	General Relativity/Cosmology	4	3	1	0
DSE – 2	Artificial Intelligence /Methods in Computer Applications	4	3	1	0
USC – 3	Foreign language – III	2	2	0	0
SEC – 3	Mentored Seminar – III	1	1	0	0
Total Credit = 27			Teaching Hour = 27		
Semester – IV					
CC – 16	Master Project / Dissertation	12	0	0	24
USC – 4	Foreign language – IV	2	2	0	0
Total Credit = 14			Teaching Hour = 26		