

### *Postgraduate Program offered (Physics)*

Sr No.	Name of the Program	Intake	Duration	Eligibility
	MSC		Two Years	BSC

### *Postgraduate Course offered*

#### **MSc (Physics) First Year Semester - I (Level 6.0)**

Vertical No.	The Vertical	Type of Course	Course Code	Course Name
0		Pre-Requisite Course		MOOC/Internship/Field Work
1	Major	Th. Major	PHY 100	Research Methodology and IPR in Physics
2	Major	Th. Major	PHY 101	DSC-I : Mathematical Physics
3	Major	Th. Major	PHY 102	DSC-II.: Classical Mechanics
4	Major	Th .Major	PHY 103	DSC-III : Quantum Mechanics - I
5	Major Elective	Th-Major Elective	PHY104(i/ii/iii)	DSE-I :(i)Computational Methods and C Programming (ii)Computational Methods and Scilab Programming (iii) Computational Methods and Python Programming

**M.Sc. (Physics) First Year Semester- II Level 6.0**

Vertical No.	The Vertical	Type of Course	Course Code	Course Name
1	Major	Th. Major	PHY201	DSC- IV : Quantum Mechanics II
2	Major	Th. Major	PHY202	DSC-V: Electromagnetic Theory
3	Major	Th. Major	PHY203	DSC-VI: Atomic and Molecular Physics
4	Major	Th. Major Elective	PHY204	DSE-II /MOOC :SE II (i): Lasers and Laser Applications DSE-II (ii): Spectroscopic Techniques DSE-II (iii): Network Theorems and Solid State Devices
5	Pr. Major	PR Major	PHY205	Lab I: (DSC IV and DSC V)
6	Pr Major	PR Major	PHY206	Lab II: (DSC VI and DSE)
7	DSC	Related to DSC		On Job Training, Internship/ Apprenticeship; Field projects Related to Major @ during vacations cumulatively
8	Generic Optional	Generic Optional		Co-curricular Courses: Health and wellness, Yoga Education, Sports and Fitness, Cultural Activities, NSS/NCC, Fine/Applied/Visual/Performing Arts During Semester I, II, III and IV

**M.Sc. (Physics) Second Year Semester- III Level 6.5**

Vertical No.	The Vertical	Type of Course	Course Code	Course Name
1	Major	Th. Major	PHY301	Major DSC- VII : Nanoscience and Nanotechnology
2	Major	Th. Major	PHY302	DSC- VIII : Solid State Physics
3	Major	Th. Major	PHY303	DSC-IX : Statistical Mechanics
4	Major	Th. Major Elective	PHY304	DSE-III /MOOC : DSE III (i): Condensed Matter Physics-I DSE-III (ii): Photonics- I DSE-III (iii): Digital Techniques -I
5	Pr. Major	Pr. Major	PHY305	Lab I: (DSC VII and DSC VIII)
6	PR. Major	Pr. Major	PHY306	Lab II: (DSC IX and DSE)
7	Major	Major-Project Phase I		Research Project Phase-I
8	Generic Optional Generic Optional		90 Hours Cumulatively From Sem I to Sem IV	Co-curricular Courses: Health and wellness, Yoga Education, Sports and Fitness, Cultural Activities, NSS/NCC, Fine/Applied/Visual/Performing Arts During Semester I, II, III and IV

**M.Sc. (Physics) Second Year Semester- IV Level 6.5**

<b>Vertical No.</b>	<b>The Vertical</b>	<b>Type of Course</b>	<b>Course Code</b>	<b>Course Name</b>
<b>1</b>	<b>Major</b>	<b>Th. Major</b>	<b>PHY401</b>	<b>DSC- X: Nuclear and Particle Physics</b>
<b>2</b>	<b>Major</b>	<b>Th. Major</b>	<b>PHY402</b>	<b>DSC- XI: Operational Amplifier and Linear Integrated Circuits</b>
<b>3</b>	<b>Major</b>	<b>Th. Major</b>	<b>PHY 403</b>	<b>DSC-XII : Radiation and Plasma Physics</b>
<b>4</b>	<b>Major</b>	<b>Th. Major Elective</b>	<b>PHY404</b>	<b>DSE-IV /MOOC : DSE IV (i): Condensed Matter Physics-II DSE-III (ii): Photonics- II DSE-IV (iii): Digital Techniques</b>
<b>5</b>	<b>Pr. Major</b>	<b>Pr. Major</b>	<b>PHY405</b>	<b>Lab I: (DSC X and DSC XI)</b>
<b>6</b>	<b>PR Major</b>	<b>Pr. Major</b>	<b>PHY406</b>	<b>\Lab II: (DSC XII and DSE)</b>
<b>7</b>	<b>Major</b>	<b>Major-Project Phase I</b>		<b>Research Project Phase-II</b>
<b>8</b>	<b>Generic Optional</b>	<b>Generic Optional</b>	<b>90 Hours Cumulatively From Sem I to Sem IV</b>	<b>Co-curricular Courses: Health and wellness, Yoga Education, Sports and Fitness, Cultural Activities, NSS/NCC, Fine/Applied/Visual/Performing Arts During Semester I, II, III and IV</b>

