

# **Scheme and Syllabus**

## **M.Sc. Physics**

### **IEC School of Basic & Applied Sciences**



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Semester wise Scheme										
Sr. No.	Course Code	Course Title	L	T	P	CH	CP	Int. A	ESE	Total Marks
<b>SEMESTER I</b>										
1	MPH 101	MATHEMATICAL PHYSICS	4	1	0	5	4.5	60	40	100
2	MPH 102	CLASSICAL MECHANICS	4	1	0	5	4.5	60	40	100
3	MPH 103	QUANTUM MECHANICS-I	4	1	0	5	4.5	60	40	100
4	MPH 104	PHOTONIC & ELECTRONIC DEVICES	4	1	0	5	4.5	60	40	100
5	MPHP 105	PHYSICS LAB I	0	0	4	4	2	30	20	50
6	MPHP 106	MINOR PROJECT-I	0	0	4	4	2	30	20	50
<b>Total</b>			<b>16</b>	<b>4</b>	<b>8</b>	<b>28</b>	<b>22</b>	<b>300</b>	<b>200</b>	<b>500</b>
<b>SEMESTER II</b>										
1	MPH 201	NUCLEAR AND PARTICLE PHYSICS	4	1	0	5	4.5	60	40	100
2	MPH 202	CONDENSED MATTER PHYSICS-I	4	1	0	5	4.5	60	40	100
3	MPH 203	COMPUTATIONAL PHYSICS	4	1	0	5	4.5	60	40	100
4	MPH 204	QUANTUM MECHANICS-II	4	1	0	5	4.5	60	40	100
5	MPHP 205	PHYSICS LAB II	0	0	4	4	2	30	20	50
6	MPHP 206	COMPUTATIONAL LAB	0	0	4	4	2	30	20	50
<b>Total</b>			<b>16</b>	<b>4</b>	<b>8</b>	<b>28</b>	<b>22</b>	<b>300</b>	<b>200</b>	<b>500</b>
<b>SEMESTER III</b>										
1	MPH 301	THERMODYNAMICS AND STATISTICAL MECHANICS	4	1	0	5	4.5	60	40	100
2	MPH 302	ELECTRODYNAMICS	4	1	0	5	4.5	60	40	100
3	MPH 303	PHYSICS OF NANOMATERIALS-I	4	0	0	5	4.5	60	40	100
4	MPH 304	CONDENSED MATTER PHYSICS-II	4	1	0	5	4.5	60	40	100
5	MPHP 305	PHYSICS LAB III	0	0	4	4	2	30	20	50
6	MPHP 306	MINOR PROJECT II	0	0	4	4	2	30	20	50
<b>Total</b>			<b>16</b>	<b>4</b>	<b>8</b>	<b>28</b>	<b>22</b>	<b>300</b>	<b>200</b>	<b>500</b>
<b>SEMESTER IV</b>										
1	MPH 401	ATOMIC AND MOLECULAR PHYSICS	4	1	0	5	4.5	60	40	100
2	MPH 402	PHYSICS OF NANOMATERIALS-II	4	1	0	5	4.5	60	40	100
3	MPH 403A or MPH 403B	MICROWAVE AND POWER ELECTRONICS <b>OR</b> VACUUM AND ION BEAM SPECTROSCOPIC TECHNIQUES	4	1	0	5	4.5	60	40	100
4	MPHP 404	RESEARCH PROJECT	-	-	-		6.5	60	40	100
<b>Total</b>			<b>12</b>	<b>3</b>	<b>0</b>	<b>15</b>	<b>20</b>	<b>240</b>	<b>160</b>	<b>400</b>