



**Integral University, Lucknow**  
**Department of Mathematics & Statistics**

Study & Evaluation Scheme of UG & PG Program with Statistics, Mathematics & Physics as per NEP 2020  
w.e.f. Session 2022-23

**B.Sc. in PMS (Mathematics, Physics)**

**Year: Third / Semester: Fifth (Odd Semester)**

S. N.	Course Code	Course Title	Theory / Practical	Course Type	Periods/ Per week			Continuous Assessment			End Semester Examination (ESE)	Subject Total	Total Credit Points	Attributes						United Nations Sustainable Development Goals (SDGs)				
					Lecture (L)	Tutorial (T)	Practical (P)	Class Test (CT)	Teacher Assessment (TA)	Total				Employability	Entrepreneurship	Skill Development	Gender Equality	environment & Sustainability	Human Value		Professional Ethics			
1	B030501T/MT320	Group and Ring Theory & Linear Algebra	Theory	Core Major (Compulsory)	4	1	0	15	10	25	75	100	05	✓		✓								
2	(a) B030502T/MT321 (b) B030503T/MT322 (c) B030504T/MT323	<b>Opt any one of the following:</b> (a) Number Theory & Game Theory (b) Graph Theory & Discrete Mathematics (c) Differential Geometry & Tensor Analysis	Theory	Major(Elective)	4	1	0	15	10	25	75	100	05	✓		✓								
3	B010501T/PY311	Classical & Statistical Mechanics	Theory	Core Major (Compulsory)	3	1	0	15	10	25	75	100	04	✓										
4	B010502T/PY312	Quantum Mechanics & Spectroscopy	Theory		3	1	0	15	10	25	75	100	04	✓										
5	B010503P/PY313	Demonstrative Aspects of Optics & Lasers	Practical		0	0	4	15	10	25	75	100	02	✓		✓								
6	Z050501	Analytic Ability and Digital Awareness	Theory	Co-curricular (Compulsory)	2	0	0	15	10	25	75	100	02	✓	✓	✓		✓	✓	✓	✓	✓		
7	B030503R/MT333	Mathematics Project-1	Practical	Core Major	0	0	6	0	0	0	100	100	03	✓		✓		✓		✓				
<b>TOTAL</b>					<b>16</b>	<b>4</b>	<b>10</b>	<b>90</b>	<b>60</b>	<b>150</b>	<b>550</b>	<b>700</b>	<b>25</b>											



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**Year: Third / Semester: Fifth (Odd Semester)**

S. N.	Course Code	Course Title	Theory / Practical	Course Type	Periods/ Per week			Continuous Assessment			End Semester Examination (ESE)	Subject Total	Total Credit Points	Attributes						United Nations Sustainable Development Goals (SDGs)			
					Lecture (L)	Tutorial (T)	Practical (P)	Class Test (CT)	Teacher Assessment (TA)	Total				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value		Professional Ethics		
1	B030501T/MT320	Group and Ring Theory & Linear Algebra	Theory	Core Major (Compulsory)	4	1	0	15	10	25	75	100	05	✓		✓							
2	(d) B030502T/MT321 (e) B030503T/MT322 (f) B030504T/MT323	<b>Opt any one of the following:</b> (a) Number Theory & Game Theory (b) Graph Theory & Discrete Mathematics (c) Differential Geometry & Tensor Analysis	Theory	Major(Elective)	4	1	0	15	10	25	75	100	05	✓		✓							
3	B060501T/MT327	Multivariate Analysis & Non-Parametric Methods	Theory	Core Major (Compulsory)	3	1	0	15	10	25	75	100	04	✓		✓							
4	B060502T/MT328	Analysis of Variance & Design of Experiments	Theory		3	1	0	15	10	25	75	100	04	✓		✓							
5	B060503P/MT329	Non-Parametric Methods & Design of Experiments Lab	Practical		0	0	4	15	10	25	75	100	02	✓		✓							
6	Z050501	Analytic Ability and Digital Awareness	Theory	Co-curricular (Compulsory)	2	0	0	15	10	25	75	100	02	✓	✓	✓		✓	✓	✓	✓	✓	
7	B030503R/MT335	Statistics Project-1	Practical	Core Major	0	0	6	0	0	0	100	100	03	✓		✓		✓			✓		
<b>TOTAL</b>					<b>16</b>	<b>4</b>	<b>10</b>	<b>90</b>	<b>60</b>	<b>150</b>	<b>550</b>	<b>700</b>	<b>25</b>										



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**B.Sc. in PMS (Physics, Statistics)**

**Year: Third / Semester: Fifth (Odd Semester)**

S. N.	Course Code	Course Title	Theory / Practical	Course Type	Periods/ Per week			Continuous Assessment			End Semester Examination (ESE)	Subject Total	Total Credit Points	Attributes						United Nations Sustainable Development Goals (SDGs)			
					Lecture (L)	Tutorial (T)	Practical (P)	Class Test (CT)	Teacher Assessment (TA)	Total				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value		Professional Ethics		
1	B010501T/ PY311	Classical & Statistical Mechanics	Theory	Core Major (Compulsory)	3	1	0	15	10	25	75	100	04	✓									
2	B010502T/ PY312	Quantum Mechanics & Spectroscopy	Theory		3	1	0	15	10	25	75	100	04	✓									
3	B060501T/ MT327	Multivariate Analysis & Non-Parametric Methods	Theory		3	1	0	15	10	25	75	100	04	✓		✓							
4	B060502T/ MT328	Analysis of Variance & Design of Experiments	Theory		3	1	0	15	10	25	75	100	04	✓		✓					✓		
5	B010503P/ PY313	Demonstrative Aspects of Optics & Lasers	Practical		0	0	4	15	10	25	75	100	02	✓		✓							
6	B060503P/ MT329	Non-Parametric Methods & Design of Experiments Lab	Practical		0	0	4	15	10	25	75	100	02	✓		✓					✓		
7	Z050501	Analytic Ability and Digital Awareness	Theory	Co-curricular (Compulsory)	2	0	0	15	10	25	75	100	02	✓	✓	✓		✓	✓	✓			
8	B030503R/ MT335	Statistics Project-1	Practical	Core Major	0	0	6	0	0	0	100	100	03	✓		✓		✓		✓			
<b>TOTAL</b>					<b>14</b>	<b>4</b>	<b>14</b>	<b>105</b>	<b>70</b>	<b>175</b>	<b>625</b>	<b>800</b>	<b>25</b>										



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**B.Sc. in PMS (Mathematics, Physics)**

**Year: Third / Semester: Sixth (Even Semester)**

S. N.	Course Code	Course Title	Theory / Practical	Course Type	Periods/ Per week			Continuous Assessment			End Semester Examination (ESE)	Subject Total	Total Credit Points	Attributes						United Nations Sustainable Development Goals (SDGs)							
					Lecture (L)	Tutorial (T)	Practical (P)	Class Test (CT)	Teacher Assessment (TA)	Total				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value		Professional Ethics						
1	B030601T/ MT324	Metric Space & Complex Analysis	Theory	Core Major (Compulsory)	3	1	0	15	10	25	75	100	04	✓		✓											
2	B030602T/ MT325	Numerical Analysis & Operations Research	Theory		3	1	0	15	10	25	75	100	04	✓		✓											
3	B010601T/ PY314	Solid State & Nuclear Physics	Theory		3	1	0	15	10	25	75	100	04	✓													
4	B010602T/ PY315	Analog & Digital Principles & Applications	Theory		3	1	0	15	10	25	75	100	04	✓													
5	B030603P/ MT326	Practical on Numerical Analysis using Mathematica /MATLAB	Practical		0	0	4	15	10	25	75	100	02	✓		✓											
6	B010603P/ PY316	Analog & Digital Circuits	Practical		0	0	4	15	10	25	75	100	02	✓													
7	Z060601	Communication Skills and Personality Development	Theory	Co-curricular (Compulsory)	2	0	0	15	10	25	75	100	02	✓	✓	✓		✓	✓	✓							
8	B030604R/ MT334	Mathematics Project-2	Practical	Core Major	0	0	6	0	0	0	100	100	03	✓		✓		✓		✓							
<b>TOTAL</b>					<b>14</b>	<b>4</b>	<b>14</b>	<b>105</b>	<b>70</b>	<b>175</b>	<b>625</b>	<b>800</b>	<b>25</b>														



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**Year: Third / Semester: Sixth (Even Semester)**

S. N.	Course Code	Course Title	Theory / Practical	Course Type	Periods/ Per week			Continuous Assessment			End Semester Examination (ESE)	Subject Total	Total Credit Points	Attributes						United Nations Sustainable Development Goals (SDGs)			
					Lecture (L)	Tutorial (T)	Practical (P)	Class Test (CT)	Teacher Assessment (TA)	Total				Employability	Entrepreneurship	Skill Development	Gender Equality	environment & Sustainability	Human Value		Professional Ethics		
1	B030601T/MT324	Metric Space & Complex Analysis	Theory	Core Major (Compulsory)	3	1	0	15	10	25	75	100	04	✓		✓							
2	B030602T/MT325	Numerical Analysis & Operations Research	Theory		3	1	0	15	10	25	75	100	04	✓		✓							
3	B060601T/MT330	Statistical Computing & Introduction to Statistical Software	Theory		3	1	0	15	10	25	75	100	04	✓		✓							
4	B060602T/MT331	Operations Research	Theory		3	1	0	15	10	25	75	100	04	✓	✓	✓							
5	B030603P/MT326	Practical on Numerical Analysis using Mathematica /MATLAB	Practical		0	0	4	15	10	25	75	100	02	✓		✓							
6	B060603P/MT332	Operations Research & Statistical Computing Lab	Practical		0	0	4	15	10	25	75	100	02	✓	✓	✓							
7	Z060601	Communication Skills and Personality Development	Theory	Co-curricular (Compulsory)	2	0	0	15	10	25	75	100	02	✓	✓	✓		✓	✓	✓			
8	B030604R/MT336	Statistics Project-2	Practical	Core Major	0	0	6	0	0	0	100	100	03	✓		✓		✓		✓			
<b>TOTAL</b>					<b>14</b>	<b>4</b>	<b>14</b>	<b>105</b>	<b>70</b>	<b>175</b>	<b>625</b>	<b>800</b>	<b>25</b>										



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**Year: Third / Semester: Sixth (Even Semester)**

S. N.	Course Code	Course Title	Theory / Practical	Course Type	Periods/ Per week			Continuous Assessment			End Semester Examination (ESE)	Subject Total	Total Credit Points	Attributes						United Nations Sustainable Development Goals (SDGs)			
					Lecture (L)	Tutorial (T)	Practical (P)	Class Test (CT)	Teacher Assessment (TA)	Total				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value		Professional Ethics		
1	B010601T/ PY314	Solid State & Nuclear Physics	Theory	Core Major (Compulsory)	3	1	0	15	10	25	75	100	04	✓									
2	B010602T/ PY315	Analog & Digital Principles & Applications	Theory		3	1	0	15	10	25	75	100	04	✓									
3	B060601T/ MT330	Statistical Computing & Introduction to Statistical Software	Theory		3	1	0	15	10	25	75	100	04	✓		✓							
4	B060602T/ MT331	Operations Research	Theory		3	1	0	15	10	25	75	100	04	✓	✓	✓							
5	B010603P/ PY316	Analog & Digital Circuits	Practical		0	0	4	15	10	25	75	100	02	✓		✓							
6	B060603P/ MT332	Operations Research & Statistical Computing Lab	Practical		0	0	4	15	10	25	75	100	02	✓	✓	✓							
7	Z060601	Communication Skills and Personality Development	Theory	Co-curricular (Compulsory)	2	0	0	15	10	25	75	100	02	✓	✓	✓		✓	✓	✓			
8	B030604R/ MT336	Statistics Project-2	Practical	Core Major	0	0	6	0	0	0	100	100	03	✓		✓		✓		✓			
<b>TOTAL</b>					<b>14</b>	<b>4</b>	<b>14</b>	<b>105</b>	<b>70</b>	<b>175</b>	<b>625</b>	<b>800</b>	<b>25</b>										