Integral University, Lucknow
Department of Physics
Study and Evaluation Scheme of Under Graduate Program
w.e.f. Session 2020-21

B.Sc. (Physics & Mathematics) **Year: Third / Semester: Fifth (Odd Semester)**

S. No.	Course Code	Course Title	Type of Paper	Periods Per Week			Evaluation Scheme				Subject Total	Credit	Total Credit	Attributes							SDG
							CIE			UE											
				L	T	P	CT	TA	CIE Total	ESE				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment and Sustainability	Human Values	Professional Ethics	
THEORY																					
1	PY301	Elements of Quantum Mechanics, Atomic & Molecular Spectra	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					
2	PY302	Classical Mechanics, Relativity & Statistical Physics	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					
3	PY303	Solid State, Nuclear & Particle Physics	Core	2	1	0	40	20	60	40	100	2:1:0	3	✓		✓					
4	MT301	Advanced Calculus	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					
5	MT302	Mathematical Statistics	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					
6	MT303	Number Theory	Core	2	1	0	40	20	60	40	100	2:1:0	3	✓		✓					
PRACTICAL																					
7	PY304	Advance Electricity and Magnetism Lab	Practical	0	0	2	40	20	60	40	100	0:0:2	1	✓		✓					
8	MT304	Statistical Techniques Lab	Practical	0	0	2	40	20	60	40	100	0:0:2	1	✓		✓					
			Total	**16**	**6**	**8**	**320**	**160**	**480**	**320**	**800**	**24**	**24**								

Integral University, Lucknow
Department of Physics
Study and Evaluation Scheme of Under Graduate Program
w.e.f. Session 2020-21

B.Sc. (Physics & Mathematics) **Year: Third / Semester: Sixth (Even Semester)**

S. No.	Course Code	Course Title	Type of Paper	Periods Per Week			Evaluation Scheme				Subject Total	Credit	Total Credit	Attributes							SDG
							CIE			UE											
				L	T	P	CT	TA	CIE Total	ESE				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment and Sustainability	Human Values	Professional Ethics	
THEORY																					
1	PY305	Applied Electronics	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					11
2	PY307	Mathematical Methods in Physics	Elective	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					4
	PY308	Advanced Solid State Physics																			
3	MT307	Basic Mathematical Modeling	Elective	3	1	0	40	20	60	40	100	3:1:0	4	✓	✓	✓					12
	MT 308	Linear Programming																			
4	MT305	Statics & Dynamics	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					9
5	MT306	Analysis	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					9
PRACTICAL																					
6	PY309	UG Physics Project	Core	0	0	8	0	0	0	200	200	0:0:4	4	✓		✓		✓		✓	11
			Total	**15**	**5**	**8**	**200**	**100**	**300**	**400**	**700**	**24**	**24**								

Integral University, Lucknow
Department of Physics
Study and Evaluation Scheme of Under Graduate Program
w.e.f. Session 2020-21

B.Sc. (Mathematics & Electronics) **Year: Third / Semester: Fifth (Odd Semester)**

S. No.	Course Code	Course Title	Type of Paper	Periods Per Week			Evaluation Scheme				Subject Total	Credit	Total Credit	Attributes							SDG
							CIE			UE											
				L	T	P	CT	TA	CIE Total	ESE				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment and Sustainability	Human Values	Professional Ethics	
THEORY																					
1	EC321	Network Circuit And Analysis	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓	✓	✓					
2	EC322	Consumer Electronics & Devices	Core	2	1	0	40	20	60	40	100	2:1:0	3	✓	✓	✓					
3	EC323	Microprocessor & Microcontroller	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓	✓	✓					
4	MT301	Advanced Calculus	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					
5	MT302	Mathematical Statistics	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					
6	MT303	Number Theory	Core	2	1	0	40	20	60	40	100	2:1:0	3	✓		✓					
PRACTICAL																					
7	EC324	Microprocessor & Microcontroller Lab	Practical	0	0	2	40	20	60	40	100	0:0:2	1	✓	✓	✓					
8	MT304	Statistical Techniques Lab	Practical	0	0	2	40	20	60	40	100	0:0:2	1	✓		✓					
			Total	**16**	**6**	**8**	**320**	**160**	**480**	**320**	**800**	**24**	**24**								

Integral University, Lucknow
Department of Physics
Study and Evaluation Scheme of Under Graduate Program
w.e.f. Session 2020-21

B.Sc. (Mathematics & Electronics) **Year: Third / Semester: Sixth (Even Semester)**

S. No.	Course Code	Course Title	Type of Paper	Periods Per Week			Evaluation Scheme				Subject Total	Credit	Total Credit	Attributes							SDG
							CIE			UE											
				L	T	P	CT	TA	CIE Total	ESE				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment and Sustainability	Human Values	Professional Ethics	
THEORY																					
1	EC325	Electronics Instrumentation & Transducers	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					11
2	EC327	Image Processing and Its Applications	Elective	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					9
	EC328	Mobile Communication																			
3	MT307	Basic Mathematical Modeling	Elective	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					12
	MT 308	Linear Programming																			
4	MT305	Statics & Dynamics	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					9
5	MT306	Analysis	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					9
PRACTICAL																					
6	EC329	UG Electronics Project	Core	0	0	8	0	0	0	200	200	0:0:4	4	✓	✓	✓		✓		✓	11
Total				**15**	**5**	**8**	**200**	**100**	**300**	**400**	**700**	**24**	**24**								

Integral University, Lucknow
Department of Physics
Study and Evaluation Scheme of Under Graduate Program
w.e.f. Session 2020-21

B.Sc. (Physics & Electronics) **Year: Third / Semester: Fifth (Odd Semester)**

S. No.	Course Code	Course Title	Type of Paper	Periods Per Week			Evaluation Scheme				Subject Total	Credit	Total Credit	Attributes							SDG
							CIE			UE											
				L	T	P	CT	TA	CIE Total	ESE				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment and Sustainability	Human Values	Professional Ethics	
THEORY																					
1	PY301	Elements of Quantum Mechanics, Atomic &Molecular Spectra	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					4 QUALITY EDUCATION
2	PY302	Classical Mechanics, Relativity & Statistical Physics	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					4 QUALITY EDUCATION
3	PY303	Solid State, Nuclear & Particle Physics	Core	2	1	0	40	20	60	40	100	2:1:0	3	✓		✓					4 QUALITY EDUCATION
4	EC321	Network Circuit and Analysis	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓	✓	✓					9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
5	EC322	Consumer Electronics & Devices	Core	2	1	0	40	20	60	40	100	2:1:0	3	✓	✓	✓					9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
6	EC323	Microprocessor & Microcontroller	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓	✓	✓					9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
PRACTICAL																					
7	PY304	Advance Electricity & Magnetism Lab	Practical	0	0	2	40	20	60	40	100	0:0:1	1	✓		✓					9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
8	EC324	Microprocessor & Microcontroller Lab	Practical	0	0	2	40	20	60	40	100	0:0:1	1	✓	✓	✓					9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
Total				**16**	**6**	**4**	**320**	**160**	**480**	**320**	**800**	**24**	**24**								

Integral University, Lucknow
Department of Physics
Study and Evaluation Scheme of Under Graduate Program
w.e.f. Session 2020-21

B.Sc. (Physics & Electronics) **Year: Third / Semester: Sixth (Even Semester)**

S. No.	Course Code	Course Title	Type of Paper	Periods Per Week			Evaluation Scheme				Subject Total	Credit	Total Credit	Attributes							SDG
							CIE			UE											
				L	T	P	CT	TA	CIE Total	ESE				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment and Sustainability	Human Values	Professional Ethics	
THEORY																					
1	PY305	Applied Electronics	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					
2	EC325	Electronics Instrumentation & Transducers	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					
3	PY307	Mathematical Methods in Physics	Elective	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					
	PY308	Advanced Solid State Physics																			
4	EC327	Image Processing and Its Applications	Elective	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					
	EC328	Mobile Communication																			
5	EC326/ PY306	Integrated Circuits / Physics of Materials	Core	3	1	0	40	20	60	40	100	3:1:0	4	✓		✓					
PRACTICAL																					
6	PY309	UG Physics Project	Core	0	0	8	0	0	0	200	200	0:0:4	4	✓		✓		✓		✓	
	EC329	UG Electronics Project												✓	✓	✓		✓		✓	
Total				**15**	**5**	**8**	**200**	**100**	**300**	**400**	**700**	**24**	**24**								

List of Elective Papers

Elective Papers from Dept. of Electronics:

Elective-1: Image Processing & Its Applications (EC327)

Elective-2: Mobile Communication (EC328)

Elective Papers from Dept. of Physics:

Elective-1: Mathematical Methods in Physics (PY307)

Elective-2: Advanced Solid State Physics (PY308)

Elective Papers from Dept. of Mathematics:

Elective-1: Basic Mathematical Modeling (MT307)

Elective-2: Linear Programming (MT308)

L: Lecture, T: Tutorial, P: Practical, CT: Class Test, TA: Teacher Assessment, ESE: End Semester Examination