Integral University, Lucknow
Faculty of Science
Department of Physics
Study and Evaluation Scheme
B.Sc. (Physics, Mathematics, Electronics)
w.e.f. July, 2018

SEMESTER I

SL. No	COURSE CODE	COURSE TITLE	Type of Paper	L	T	P	Evaluation Scheme				Subject Total	Credit	Total Credit
							CT	TA	Total	ESE			
1	LN104	Essential Professional Communication	Foundation	3	1	0	25	15	40	60	100	3:1:0	4
2	PY106	Mechanics and Wave Motion	Core	3	1	0	25	15	40	60	100	3:1:0	4
3	EC 121	Fundamentals of Electronics	Core	2	1	0	25	15	40	60	100	2:1:0	3
4	MT121	Algebra and Trigonometry	Core	3	1	0	25	15	40	60	100	3:1:0	4
5	MT122	Calculus	Core	3	1	0	25	15	40	60	100	3:1:0	4
6	PY107	Mechanics Lab	Practical	0	0	6	25	15	40	60	100	0:0:3	3
7	EC122	Fundamentals of Electronics Lab	Practical	0	0	4	25	15	40	60	100	0:0:2	2
		Total		**14**	**5**	**10**	**175**	**105**	**280**	**420**	**700**	**24**	**24**

SEMESTER II

SL. No	COURSE CODE	COURSE TITLE	Type of Paper	L	T	P	Evaluation Scheme				Subject Total	Credit	Total Credit
							CT	TA	Total	ESE			
1	ES115	Fundamentals of Environmental Science	Foundation	3	1	0	25	15	40	60	100	3:1:0	4
2	PY108	Physical Optics and Lasers	Core	3	1	0	25	15	40	60	100	3:1:0	4
3	EC 123	Digital Design	Core	3	1	0	25	15	40	60	100	3:1:0	4
4	MT123	Vector Analysis and Geometry	Core	3	1	0	25	15	40	60	100	3:1:0	4
5	MT124	Differential Equations	Core	3	1	0	25	15	40	60	100	3:1:0	4
6	PY109	Optics Lab	Practical	0	0	4	25	15	40	60	100	0:0:2	2
7	EC 124	Digital Design Lab	Practical	0	0	4	25	15	40	60	100	0:0:2	2
		Total		**15**	**5**	**8**	**175**	**105**	**280**	**420**	**700**	**24**	**24**

SEMESTER III

SL. No	COURSE CODE	COURSE TITLE	Type of Paper	L	T	P	Evaluation Scheme				Subject Total	Credit	Total Credit
							CT	TA	Total	ESE			
1	PY201	Circuit Fundamentals & Basic Electronics	Core	3	1	0	25	15	40	60	100	3:1:0	4
2	PY202	Kinetic Theory & Thermodynamics	Core	3	1	0	25	15	40	60	100	3:1:0	4
3	EC 221	Logic Development and Programming	Core	2	1	0	25	15	40	60	100	2:1:0	3
4	EC 222	Electronics Circuits	Core	3	1	0	25	15	40	60	100	3:1:0	4
5	MT211	Numerical Computing	Core	3	1	0	25	15	40	60	100	3:1:0	4
6	PY203	Electronics and Thermal Physics Lab	Practical	0	0	4	25	15	40	60	100	0:0:2	2
7	EC223	Logic Development and Programming Lab	Practical	0	0	4	25	15	40	60	100	0:0:2	2
8	MT212	Numerical Computing Lab	Practical	0	0	4	25	15	40	60	100	0:0:2	2
		Total		**14**	**5**	**12**	**200**	**120**	**320**	**480**	**800**	**25**	**25**

SEMESTER IV

SL. No	COURSE CODE	COURSE TITLE	Type of Paper	L	T	P	Evaluation Scheme				Subject Total	Credit	Total Credit
							CT	TA	Total	ESE			
1	PY204	Electricity & Magnetism	Core	3	1	0	25	15	40	60	100	3:1:0	4
2	EC 224	Signal Processing	Core	3	1	0	25	15	40	60	100	3:1:0	4
3	EC 225	Analog and Digital Communication	Core	3	1	0	25	15	40	60	100	3:1:0	4
4	MT213	Tensor Analysis	Core	3	1	0	25	15	40	60	100	3:1:0	4
5	MT214	Abstract Algebra	Core	3	1	0	25	15	40	60	100	3:1:0	4
6	PY205	Electricity & Magnetism Lab	Practical	0	0	6	25	15	40	60	100	0:0:3	3
7	EC 226	Analog and Digital Communication Lab	Practical	0	0	4	25	15	40	60	100	0:0:2	2
		Total		**15**	**5**	**10**	**175**	**105**	**280**	**420**	**700**	**25**	**25**

SEMESTER V (Physics, Mathematics)

SL. No	COURSE CODE	COURSE TITLE	Type of Paper	L	T	P	Evaluation Scheme				Subject Total	Credit	Total Credit
							CT	TA	Total	ESE			
1	PY301	Elements of Quantum Mechanics, Atomic & Molecular Spectra	Core	3	1	0	25	15	40	60	100	3:1:0	4
2	PY302	Classical Mechanics, Relativity & Statistical Physics	Core	3	1	0	25	15	40	60	100	3:1:0	4
3	PY303	Solid State, Nuclear & Particle Physics	Core	2	1	0	25	15	40	60	100	2:1:0	3
4	MT301	Advanced Calculus	Core	3	1	0	25	15	40	60	100	3:1:0	4
5	MT302	Mathematical Statistics	Core	3	1	0	25	15	40	60	100	3:1:0	4
6	MT303	Number Theory	Core	2	1	0	25	15	40	60	100	2:1:0	3
7	PY304	Advance Electricity &Magnetism Lab	Practical	0	0	2	25	15	40	60	100	0:0:2	1
8	MT304	Statistical Techniques Lab	Practical	0	0	2	25	15	40	60	100	0:0:2	1
		Total		**16**	**6**	**8**	**200**	**120**	**320**	**480**	**800**	**24**	**24**

SEMESTER VI (Physics, Mathematics)

SL. No	COURSE CODE	COURSE TITLE	Type of Paper	L	T	P	Evaluation Scheme				Subject Total	Credit	Total Credit
							CT	TA	Total	ESE			
1	PY305	Applied Electronics	Core	3	1	0	25	15	40	60	100	3:1:0	4
2	Elective	Physics	Core	3	1	0	25	15	40	60	100	3:1:0	4
3	Elective	Mathematics	Core	3	1	0	25	15	40	60	100	3:1:0	4
4	MT 305	Statics & Dynamics	Core	3	1	0	25	15	40	60	100	3:1:0	4
5	MT 306	Analysis	Core	3	1	0	25	15	40	60	100	3:1:0	4
6	PY 309	UG Physics Project	Core	0	0	8	0	0	0	200	200	0:0:4	4
		Total		**15**	**5**	**8**	**125**	**75**	**200**	**500**	**700**	**24**	**24**

SEMESTER V (Electronics, Mathematics)

SL. No	COURSE CODE	COURSE TITLE	Type of Paper	L	T	P	Evaluation Scheme				Subject Total	Credit	Total Credit
							CT	TA	Total	ESE			
1	EC321	Network Circuit And Analysis	Core	3	1	0	25	15	40	60	100	3:1:0	4
2	EC322	Consumer Electronics & Devices	Core	2	1	0	25	15	40	60	100	2:1:0	3
3	EC323	Microprocessor & Microcontroller	Core	3	1	0	25	15	40	60	100	3:1:0	4
4	MT301	Advanced Calculus	Core	3	1	0	25	15	40	60	100	3:1:0	4
5	MT302	Mathematical Statistics	Core	3	1	0	25	15	40	60	100	3:1:0	4
6	MT303	Number Theory	Core	2	1	0	25	15	40	60	100	2:1:0	3
7	EC324	Microprocessor & Microcontroller Lab	Practical	0	0	2	25	15	40	60	100	0:0:2	1
8	MT304	Statistical Techniques Lab	Practical	0	0	2	25	15	40	60	100	0:0:2	1
		Total		**16**	**6**	**8**	**200**	**120**	**320**	**480**	**800**	**24**	**24**

SEMESTER VI (Electronics, Mathematics)

SL. No	COURSE CODE	COURSE TITLE	Type of Paper	L	T	P	Evaluation Scheme				Subject Total	Credit	Total Credit
							CT	TA	Total	ESE			
1	EC325	Electronics Instrumentation & Transducers	Core	3	1	0	25	15	40	60	100	3:1:0	4
2	Elective	Electronics	Core	3	1	0	25	15	40	60	100	3:1:0	4
3	Elective	Mathematics	Core	3	1	0	25	15	40	60	100	3:1:0	4
4	MT 305	Statics & Dynamics	Core	3	1	0	25	15	40	60	100	3:1:0	4
5	MT 306	Analysis	Core	3	1	0	25	15	40	60	100	3:1:0	4
6	EC 329	UG Electronics Project	Core	0	0	8	0	0	0	200	200	0:0:4	4
		Total		**15**	**5**	**8**	**125**	**75**	**200**	**500**	**700**	**24**	**24**

SEMESTER V (Physics, Electronics)

SL. No	COURSE CODE	COURSE TITLE	Type of Paper	L	T	P	Evaluation Scheme				Subject Total	Credit	Total Credit
							CT	TA	Total	ESE			
1	PY301	Elements of Quantum Mechanics, Atomic & Molecular Spectra	Core	3	1	0	25	15	40	60	100	3:1:0	4
2	PY302	Classical Mechanics, Relativity & Statistical Physics	Core	3	1	0	25	15	40	60	100	3:1:0	4
3	PY303	Solid State, Nuclear & Particle Physics	Core	2	1	0	25	15	40	60	100	2:1:0	3
4	EC321	Network Circuit and Analysis	Core	3	1	0	25	15	40	60	100	3:1:0	4
5	EC322	Consumer Electronics & Devices	Core	2	1	0	25	15	40	60	100	2:1:0	3
6	EC323	Microprocessor & Microcontroller	Core	3	1	0	25	15	40	60	100	3:1:0	4
7	PY304	Advance Electricity &Magnetism Lab	Practical	0	0	2	25	15	40	60	100	0:0:1	1
8	EC324	Microprocessor & Microcontroller Lab	Practical	0	0	2	25	15	40	60	100	0:0:1	1
		Total		**14**	**6**	**8**	**200**	**120**	**320**	**480**	**800**	**24**	**24**

SEMESTER VI (Physics, Electronics)

SL. No	COURSE CODE	COURSE TITLE	Type of Paper	L	T	P	Evaluation Scheme				Subject Total	Credit	Total Credit
							CT	TA	Total	ESE			
1	PY305	Applied Electronics	Core	3	1	0	25	15	40	60	100	3:1:0	4
2	EC325	Electronics Instrumentation & Transducers	Core	3	1	0	25	15	40	60	100	3:1:0	4
3	Elective	Physics	Core	3	1	0	25	15	40	60	100	3:1:0	4
4	Elective	Electronics	Core	3	1	0	25	15	40	60	100	3:1:0	4
5	EC326/PY306	Integrated Circuits /Physics of Materials	Core	3	1	0	25	15	40	60	100	3:1:0	4
6	PY 309/EC 329	UG Physics Project/UG Electronics Project	Core	0	0	8	0	0	0	200	200	0:0:4	4
		Total		**15**	**5**	**8**	**125**	**75**	**200**	**500**	**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 (PY 307), Elective-2 Advanced Solid State Physics (PY 308)

Elective Papers from Dept. of Mathematics: Basic Mathematical Modeling (MT307), Linear Programming (MT 308)

L: Lecture, T: Tutorial, P: Practical

CT: Class Test, TA: Teacher Assessment, ESE: End Semester Examination