

Course Structure & Evaluation Scheme

Bachelor of Science (HONS.)

Physics

[Academic Session 2020-21]



**UNITED UNIVERSITY,
PRAYAGRAJ**

COURSE STRUCTURE & EVALUATION SCHEME

B.Sc. (Hons.) Physics 3 Year (6 Semester) Programme United University, Prayagraj 2020-2021 Session

SUMMARY

Sem.	Core Subject (Physics)		Generic Courses (Computing Courses)		Ability Enhancement Courses (AEC)		Total	
	Number of Courses	Credit	Number of Courses	Credit	Number of Courses	Credit	Number of Courses	Credit
I	4	12	2	6	2	6	8	24
II	4	12	1	4	2	8	7	24
III	6	18	1	4	1	4	8	26
IV	4	12	2	6	1	4	7	22
V	6	18	2	6	-	-	8	24
VI	7	24	-	-	-	-	7	24
Total	31	96	8	26	6	22	45	144

COURSE STRUCTURE & EVALUATION SCHEME

B.Sc. (Hons.) Physics 3 Year (6 Semester) Programme United University, Prayagraj 2020-2021 Session

Sr. No.	Course Code	Course Title	Teaching			Evaluation			Credit
			L	T	P	CA	ESE	Total	
SEMESTER-I									
1		Mathematical Physics –I	4	-	-	40	60	100	4
2		Mathematical Physics –I Lab	-	-	4	20	30	50	2
3		Mechanics	4	-	-	40	60	100	4
4		Mechanics Lab	-	-	4	20	30	50	2
5		Fundamentals of Computer and C- Programming	4	-	-	40	60	100	4
6		C- Programming Lab	-	-	4	20	30	50	2
7		Professional Communication	2	-	-	20	30	50	2
8		Professional Proficiency –I	4	-	-	40	60	100	4
Total			18	-	12	240	360	600	24
SEMESTER-II									
1		Electricity and Magnetism	4	-	-	40	60	100	4
2		Electricity and Magnetism Lab	-	-	4	20	30	50	2
3		Waves and Optics	4	-	-	40	60	100	4
4		Waves and Optics Lab	-	-	4	20	30	50	2
5		Fundamentals of Data Science	4	-	-	40	60	100	4
6		Environmental Science	4	-	-	40	60	100	4
7		Professional Proficiency –II	4	-	-	40	60	100	4
Total			20	-	8	240	360	600	24

SEMESTER-III

1		Mathematical Physics – II	4	-	-	40	60	100	4
2		Mathematical Physics – II Lab	-	-	4	20	30	50	2
3		Thermal Physics	4	-	-	40	60	100	4
4		Thermal Physics Lab	-	-	4	20	30	50	2
5		Digital Systems & Applications	4	-	-	40	60	100	4
6		Digital Systems & Applications Lab	-	-	4	20	30	50	2
7		Neural Network	4	-	-	40	60	100	4
8		Professional Proficiency –III	4	-	-	40	60	100	4
Total			20	-	12	260	390	650	26

SEMESTER-IV

1		Mathematical Physics – III	4	-	-	40	60	100	4
2		Mathematical Physics – III Lab	-	-	4	20	30	50	2
3		Elements of Modern Physics	4	-	-	40	60	100	4
4		Elements of Modern Physics Lab	-	-	4	20	30	50	2
5		Python Programming	4	-	-	40	60	100	4
6		Python Programming Lab	-	-	4	20	30	50	2
7		Professional Proficiency -IV	4	-	-	40	60	100	4
Total			16		12	220	330	550	22

SEMESTER-V									
1		Quantum Mechanics & Applications	4	-	-	40	60	100	4
2		Quantum Mechanics Lab	-	-	4	20	30	50	2
3		Solid State Physics	4	-	-	40	60	100	4
4		Solid State Physics Lab	-	-	4	20	30	50	2
5		Nano Materials & Applications	4	-	-	40	60	100	4
6		Nano Materials Lab	-	-	4	20	30	50	2
7		AI & Machine Learning	4	-	-	40	60	100	4
8		AI & Machine Learning Lab	-	-	4	20	30	50	2
Total			16	-	16	240	360	600	24
SEMESTER-VI									
1		Electromagnetic Theory	4	-	-	40	60	100	4
2		Electromagnetic Theory Lab	-	-	4	20	30	50	2
3		Statistical Mechanics	4	-	-	40	60	100	4
4		Statistical Mechanics Lab	-	-	4	20	30	50	2
5		Atmospheric Physics	4	-	-	40	60	100	4
6		Atmospheric Physics Lab	-	-	4	20	30	50	2
7		Project	-	-	-	-	-	150	6
Total			12	-	12	180	270	600	24

L - Lecture, T - Tutorial, P- Practical

CA - Continuous Assessment

ESE - End Semester Examination

Guidelines on Continuous Assessment (CA)

Continuous Assessment (CA). of a course with weightage 40% has got two components

(a) **Class Tests** (b) **Teacher Assessment.**

- (a) **Class Tests (20 % marks)** : There should be 2-3 class tests of at least one hour in each paper. First test normally covers 40% of the course.
- (b) **Teacher Assessment (20 % marks)** : is based on some kind of assignments & VIVA etc. such as mini projects and its presentation, development of some tools & app and some presentations based on topics of the paper which may also be related to some kind of real life example. Normally there should be two mini projects, and its presentation and 6-8 presentations based on topics of the course.