

STUDY & EVALUATION SCHEME
B.SC. (H) PHYSICS
I YEAR: I SEMESTER

S. NO	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C	COURSE TYPE	FACULTY
THEORY											
1	UPH1003	Mechanics and Waves	3	1	-	40	60	100	4	Major 1	Own Faculty
2	UPH1004	Optics	3	1	-	40	60	100	4		
3									10	Major 2	Own Faculty
4											
5	UEG1502 SE	Functional English	2	0	0	40	60	100	2	Skills Enhancement Course (Minor)	Other Faculty
6	UPC1401	First Aid & Health	2	0	0	100	-	100	**2	Co-Curricular course (Minor)	Other Faculty
PRACTICAL											
7	UPH1202	Physics Lab-I	-	-	4	80	20	100	2	Major 1	Own Faculty
8	UEG1501 SE	English Language Lab	-	-	2	80	20	100	1	Skills Enhancement Course (Minor)	Other Faculty
TOTAL			22	2	4	540	460	1000	26		

L - Lecture

T - Tutorial

P - Practical

CIE - Continuous Internal Evaluation

ESE-End Semester Exam

C - Credit

STUDY & EVALUATION SCHEME
B.SC. (H) PHYSICS
I YEAR: II SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C	COURSE TYPE	FACULTY
THEORY											
1	UPH2003	Electricity and Magnetism	3	1	-	40	60	100	4	Major 1	Own Faculty
2	UPH2004	Thermal Physics	3	1	-	40	60	100	4		
3									10	Major 2	Own Faculty
4											
		Minor Elective- I	4	0	0	40	60	100	4	Minor Elective -I	Other Faculty
5	UPH2501SE	Basic Instruments	3	0	0	40	60	100	3	Skills Enhancement Course (Minor)	Own Faculty
6	UBS2401	Food nutrition and Hygiene	2	0	0	100	-	100	**2	Co-Curricular course (Minor)	Other Faculty
PRACTICAL											
7	UPH2202	Physics Lab-II	-	-	4	80	20	100	2	Major 1	Own Faculty
TOTAL			15	2	4	340	260	600	29		

L - Lecture

T - Tutorial

P - Practical

CIE - Continuous Internal Evaluation

ESE-End Semester Exam

C - Credit

STUDY & EVALUATION SCHEME
B.SC. (H) PHYSICS
II YEAR: III SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C	COURSE TYPE	FACULTY
THEORY											
1	UPH3003	Basic Electronics	3	1	-	40	60	100	4	Major 1	Own Faculty
2	UPH3004	Modern Physics	3	1	-	40	60	100	4		
3									10	Major 2	Own Faculty
4											
5	UPH3501SE	Renewable Energy	3	0	0	40	60	100	3	Skills Enhancement Course (Minor)	Own Faculty
6	UPE3401	Physical Education and Yoga	2	0	0	100	-	100	**2	Co-Curricular course (Minor)	Other Faculty
PRACTICAL											
7	UPH3201	Physics Lab-III	-	-	4	40	60	100	2	Major 1	Own Faculty
TOTAL			11	2	4	260	240	500	25		

L - Lecture

T - Tutorial

P - Practical

CIE - Continuous Internal Evaluation

ESE-End Semester Exam

C - Credit

STUDY & EVALUATION SCHEME
B.SC. (H) PHYSICS
II YEAR: IV SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C	COURSE TYPE	FACULTY
THEORY											
1	UPH4003	Mathematical Physics - I	3	1	-	40	60	100	4	Major 1	Own Faculty
2	UPH4004	Classical and Statistical Mechanics	3	1	-	40	60	100	4		
3	UPH4005	Electro Magnetic Theory	3	1	-	40	60	100	4		
4	UPH4006	Quantum Theory	3	1	-	40	60	100	4		
5		Minor Elective- II	4	0	0	40	60	100	4	Minor Elective	Other Faculty
6	UPH4501SE	Device Physics	3	0	0	40	60	100	3	Skills Enhancement Course (Minor)	Own Faculty
7	USO4402	Human Values and Environmental Studies	2	0	0	100	-	100	**2	Co-Curricular course (Minor)	Other Faculty
PRACTICAL											
8	UPH4202	Physics Lab-IV	-	-	4	80	20	100	2	Major 1	Own Faculty
TOTAL			21	4	4	420	380	800	27		

L - Lecture

T - Tutorial

P - Practical

CIE - Continuous Internal Evaluation

ESE-End Semester Exam

C - Credit

STUDY & EVALUATION SCHEME
B.SC. (H) PHYSICS
III YEAR: V SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C	COURSE TYPE	FACULTY
THEORY											
1	UPH5003	Mathematical Physics - II	3	1	-	40	60	100	4	Major 1	Own Faculty
2	UPH5004	Solid State Physics	3	1	-	40	60	100	4		
3	UPH5005	Digital Electronics	3	1	-	40	60	100	4		
4		Elective- I	4	1	0	40	60	100	5		
5	USS5401	Communication Skill and Personality Development	2	0	0	100	-	100	**2	Co-Curricular course (Minor)	Other Faculty
PRACTICAL											
6	UPH5202	Physics Lab-V	-	-	4	80	20	100	2	Major 1	Own Faculty
7	UPH5701TM	Term Paper I	0	0	6	40	60	100	3		Inter/Intra faculty to main subject
8	UPH5701SM	Seminar	-	-	2	-	100	100	1		Own Faculty
TOTAL			15	4	12	380	420	800	25		

L - Lecture

T - Tutorial

P - Practical

CIE - Continuous Internal Evaluation

ESE-End Semester Exam

C - Credit

STUDY & EVALUATION SCHEME
B.SC. (H) PHYSICS
III YEAR: VI SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C	COURSE TYPE	FACULTY
THEORY											
1	UPH6003	Nuclear and Particle Physics	4	1	-	40	60	100	5	Major 1	Own Faculty
2	UPH6004	Atomic and Molecular Physics	4	1	-	40	60	100	5		
3		Elective- II	4	1	0	40	60	100	5		
4	UAP6401	Analytic Ability and Digital Awareness	2	0	0	40	60	100	* *2	Co-Curricular course (Minor)	Other Faculty
PRACTICAL											
6	UPH6202	Physics Lab-VI	-	-	6	80	20	100	3	Major 1	Own Faculty
7	UPH6701TM	Term Paper II	0	0	6	40	60	100	3		Inter/Intra faculty to main subject
8	UPH6201CV	Comprehensive Viva	-	-	-	100	-	100	2		Own Faculty
TOTAL			14	3	12	380	320	700	25		

L - Lecture

T - Tutorial

P - Practical

CIE - Continuous Internal Evaluation

ESE-End Semester Exam

C - Credit

STUDY & EVALUATION SCHEME
B.SC. (H) PHYSICS
IV YEAR: VII SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C	COURSE TYPE	FACULTY
THEORY											
1	UPH7004	Modern Quantum Mechanics	4	0	0	40	60	100	4	Major 1	Own Faculty
2	UPH7005	Laser and Laser Applications	4	0	0	40	60	100	4		
3	UPH7006	Fiber Optics Physics	4	0	0	40	60	100	4		
4		Elective- II	4	0	0	40	60	100	4		
PRACTICAL											
5	UPH7201	Physics Lab-VII	0	0	8	40	60	100	4	Major 1	Own Faculty
6	UPH7701PJ	Research Project I	0	0	12	40	60	100	6		Inter/Intra faculty to main subject
TOTAL			16	0	20	240	360	600	26		

L - Lecture

T - Tutorial

P - Practical

CIE - Continuous Internal Evaluation

ESE-End Semester Exam

C - Credit

STUDY & EVALUATION SCHEME
B.SC. (H) PHYSICS
IV YEAR: VIII SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C	COURSE TYPE	FACULTY
THEORY											
1	UPH8003	Structure of Matter	4	0	0	40	60	100	4	Major 1	Own Faculty
2	UPH8004	Basics of Optoelectronics	4	0	0	40	60	100	4		
3		Elective- IV	4	0	0	40	60	100	4		
4		Elective- V	4	0	0	40	60	100	4		
5		Minor Elective III	4	0	0	40	60	100	4	Minor Elective	Other Faculty
PRACTICAL											
6	UPH8201	Physics Lab-VIII	0	0	8	40	60	100	4	Major 1	Own Faculty
7	UPH8701PJ	Research Project II	0	0	12	40	60	100	6		Inter/Intra faculty to main subject
TOTAL			20	0	20	280	420	700	30		

L - Lecture

T - Tutorial

P - Practical

CIE - Continuous Internal Evaluation

ESE-End Semester Exam

C - Credit

LIST OF ELECTIVE

S. NO.	SUBJECT CODE	SUBJECT
	ELECTIVE-I(SEMESTER-V)	
1	UPH5101	Nano Science and Applications
2	UPH5102	Introduction to Plasma Physics
	ELECTIVE-II(SEMESTER-VI)	
1	UPH6101	Introduction to Superconductors and Cryogenics
2	UPH6102	Biological Physics
	ELECTIVE-III(SEMESTER-VII)	
1	UPH7101	Nonlinear fiber optics
2	UPH7102	Optical Communication
	ELECTIVE-IV(SEMESTER-VIII)	
1	UPH8101	Basics of quantum computation
2	UPH8102	Space time physics
	ELECTIVE-V(SEMESTER-VIII)	
1	UPH8103	Introduction to Cosmology
2	UPH8104	Classical Field Theory

CREDIT CHART

SEMESTER	MINIMUM CREDIT	TOTAL CREDIT	COURSE	CUMULATIVE MINIMUM CREDIT
I	25	54	Certificate in Basic Physics & Semiconductor Devices	54
II	29			
III	25	52	Diploma in Applied Physics with Electronics	106
IV	27			
V	25	50	Degree in Bachelor of Science	156
VI	25			
VII	26	56	Degree in Bachelor of Science (Research)	212
VIII	30			
TOTAL CREDIT		212		

MINOE ELECTIVE COURSES (OPEN FOR OTHER PROGRAMS OF THE UNIVERSITY)

S. No.	COURSE CODE	COURSE	CREDIT	SEMESTER
1	UPH2301	Space Science	4	II
2	UPH4301	History and Philosophy of Science	4	IV
3	UPH8301	Quantum World	4	VIII