

Integrated B.Sc. and M.Sc. (Physics)

PROPOSED SCHEME FOR 5 Year Integrated B.Sc. and M.Sc.(Physics) Program

1st YEAR FIRST SEMESTER

Teaching Scheme						Contact Hours/ Week			Exam Duration		Relative Weightage %				
S. No.	Subject Code	Course Title	Course Name	Course Type	Credit	L	T	P	Theor y	Practica l	CW S	PRS	MTE	ETE	PRE
1.	IMSPH 101	DCC-1	Mathematical Physics-I	DCC	4	3	1	0	3	-	25	-	25	50	-
2.	IMSPH 103	DCC-2	Introduction to Mechanics	DCC	4	3	1	0	3	-	25	-	25	50	-
3.	IMSPH 105	DCC-3	Elements of Electricity and Magnetism	DCC	4	3	0	2	3	-	15	25	20	40	-
4.	IMSPH 107	GEC-1	For other Department offering IMSc Physics I	GEC	4	3	0	2	3	-	15	25	20	40	
5.	ISEC 1yy	SEC-1	From the pool of SEC	SEC	2	1	0	2	2	-					
6.	IVAC 1yy	VAC-1	Choose from the pool of VAC	VAC	2										
7.	IAEC 1yy	AEC-1	Choose from the pool of AEC	AEC	2										
		Total			22										
		For exit one project			4										

Credits

Total	Core	Generic Electives (GE)	Department Specific Electives (DSE)	Ability Enhancement Courses (AEC)	Skill Enhancement Courses (SEC)	Value added courses (VAC)
22	12	4	-	2	2	2

PROPOSED SCHEME FOR 5 Year Integrated B.Sc. and M.Sc.(Physics) Program
1st YEAR SECOND SEMESTER

Teaching Scheme						Contact Hours/ Week			Exam Duration		Relative Weightage %				
S. No.	Subject Code	Course Title	Course Name	Course Type	Credit	L	T	P	Theor y	Practica l	CWS	PRS	MTE	ETE	PRE
1.	IMSPH 102	DCC-4	Mathematical Physics-II	DCC	4	3	1	0	3	-	25	-	25	50	-
2.	IMSPH 104	DCC-5	Physics of Vibrations and Waves	DCC	4	3	1	0	3	-	25	-	25	50	-
3.	IMSPH 106	DCC-6	Analog Electronics	DCC	4	3	0	2	3	-	15	25	20	40	-
4.	IMSPH 108	GEC-2	Physics II	GEC	4	3	0	2	3		15	25	20	40	
5.	IAEC 1yy	AEC 2	Choose from the pool of AEC	AEC	2										
6.	ISEC 1yy	SEC-2	Introduction to Glass Technology	SEC	2	1	0	2							
7.	IVAC 1yy	VAC-2	Choose from the pool of VAC	VAC	2										
		Total			22										
		For exit (4 more credit needed through work based vocational courses offered during summer term or through internship/apprenticeship experiences)			4										

Credits :For exit: Total credits needed=22+22+4=48

Total	Core	Generic Electives (GE)	Department Specific Electives (DSE)	Ability Enhancement Courses (AEC)	Skill Enhancement Courses (SEC)	Value added courses (VAC)
22	12	4	-	2	2	2

PROPOSED SCHEME FOR 5 Year Integrated B.Sc. and M.Sc.(Physics) Program
2nd YEAR THIRD SEMESTER

Teaching Scheme						Contact Hours/ Week			Exam Duration		Relative Weightage %				
S. N o.	Subject Code	Course Title	Course Name	Course Type	Credit	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
	IMSPH 201	DCC 7	Numerical Analysis	DCC	4	3	1	0	3	-	25	-	25	50	-
	IMSPH 203	DCC 8	Modern physics	DCC	4	3	1	0	3	-	25	-	25	50	-
	IMSPH 205	DCC 9	Optics	DCC	4	3	0	2	3	-	15	25	20	40	
	IMSPH 207	GEC-3	Basic Electronics	GEC	2	2	0	0							-
	IMSPH209/ IMSPH 210	DEC1/ GEC4	Choose from the basket of GEC-4/ DEC 1	DSE	4	4/3/3	0/1/0	0/0/2			25	-	25	50	-
	IAEC 2yy	AEC-3	Choose from the pool of AEC	AEC	2										-
	ISEC 2yy	SEC-3	Introduction to data analysis with Python & Jupiter	SEC	2	1	0	2				50			50
		Total			22										

Credits

Total	Core	Generic Electives (GE)	Department Specific Electives (DSE)	Ability Enhancement Courses (AEC)	Skill Enhancement Courses (SEC)	Value added courses (VAC)
22	12	2	4	2	2	0

PROPOSED SCHEME FOR 5 Year Integrated B.Sc. and M.Sc.(Physics) Program
2nd YEAR FOURTH SEMESTER

Teaching Scheme						Contact Hours/ Week			Exam Duration		Relative Weightage %				
S. No.	Subject Code	Course Title	Course name	Course Type	Credit	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
	IMSPH 202	DCC-10	Solid State Physics	DCC	4	3	0	2	3	-	15	25	20	40	-
	IMSPH 204	DCC-11	Thermal and Statistical Physics	DCC	4	3	1	0	3	-	25	-	25	50	-
	IMSPH 206	DCC-12	Digital Electronics	DCC	4	3	0	2	3	-	15	25	20	40	
	IMSPH 208	DEC 2/ GEC 5	Choose from the basket of DEC 2/ GEC 5	DSE	4	4/3/3	0/1/0	0/0/2	3		25	-	25	50	-
	IAEC 2yy	AEC 4	Choose from the pool of AEC	AEC	2										-
	ISEC 2yy	SEC 4	MATLAB	SEC	2	1	0	2				50			50
	IVAC 2yy	VAC 3	Choose from the pool of VAC	VAC	2										-
	Total				22										
	For exit (4 more credit needed through work based vocational courses offered during the first year or second year summer term)				4										

Credits

Total	Core	Generic Electives (GE)	Department Specific Electives (DSE)	Ability Enhancement Courses (AEC)	Skill Enhancement Courses (SEC)	Value added courses (VAC)
22	12	0/4	4/0	2	2	2

For Exit: total credits needed=22+22+22+22+4=88+4=92