

School of Basic Sciences: School of Basic Sciences
M.Sc. Green Hydrogen (2 Yrs)

Year 1						
Semester-I						
S. No.	Category	Name of the Course				
			L	T	P	C
1	DSC	Hydrogen Energy Vector & Chemical Elements	4	-	-	4
2	DSC	Fundamentals of Green Hydrogen & Sustainability	4	-	-	4
3	DSC	Renewable Energy Systems & Hydrogen Economy	3	-	-	3
4	DSC	Materials for Hydrogen Technology	3	-	-	3
5	AEC	Professional Communication	0	-	2	2
6	SEC	Computational programming	0	-	2	2
7	VAC	Seminar I	0	-	2	2
Total Credits						20
Semester-II						
S. No.	Category	Name of the Course				
			L	T	P	C
1	DSC	Electrochemistry & Electrolyser Systems	4	-	1	5
2	DSC	Conventional and Green Hydrogen Production	4	-	-	4
3	DSE	ELECTIVE-I	-	-	-	4
4	DSC	Water Quality, Desalination & H ₂ Purification	3	-	1	4
5	SEC	Computer design for hydrogen technologies-Lab-1	0	-	2	2
6	VAC	Seminar II	0	-	2	2
Total Credits						21

Year 2						
Semester-III						
S. No.	Category	Name of the Course				
			L	T	P	C
1	DSC	Hydrogen Storage, Distribution & Grid Integration	4	-	-	4
2	DSC	Fuel Cells and Applications	4	-	-	4
3	DSC	Hydrogen Safety, Standards, and Sustainability	3	-	-	3
4	DSE	ELECTIVE-II	0	-	-	4
5	SEC	Computer design for hydrogen technologies	0	-	2	2
		Lab-2				
6	VAC	Research Methodology, Innovation & IPR	4	-	-	4
7	PBL	Mini Project	0	-	4	4
Total Credits						25
Semester-IV						
S. No.	Category	Name of the Course				
			L	T	P	C
1	PBL	Dissertation	0	0	0	14
Total Credits						14
List of Electives						
S. No.	Elective	Course Title	L	T	P	C
1	Elective-I	Simulation & Modeling for Hydrogen Energy Systems	-	-	-	4
2	Elective-I	Green Hydrogen Policy, ESG, and Global Frameworks	-	-	-	4
3	Elective-II	Automation, IoT & AI in Hydrogen Infrastructure	-	-	-	4
4	Elective-II	Economics of Hydrogen & Carbon Pricing Mechanisms	-	-	-	4