

Department of Fuel, Mineral & Metallurgical Engineering

NEP courses for the batch admitted from AY 2024-25

Details of Departmental Compulsary (DC) Courses

Departmental Compulsary (DC) Courses					
S. No.	Course Code	Course Name	L-T-P	Credit	Course Type
1	NFMCS01	Size Preparation Technology	3-1-0	4	Theory
2	NFMCS02	Coal & Mineral Beneficiation	3-1-0	4	Theory
3	NFMCS03	Process Metallurgy	3-1-0	4	Theory
4	NFMCS04	Non-ferrous Extractive Metallurgy Lab	0-0-3	1.5	Practical
5	NFMCS05	Mineral Processing Lab	0-0-3	1.5	Practical
6	NFMCS06	Fuel Technology Lab	0-0-3	1.5	Practical
7	NFMCS07	Process Equipment Selection	3-1-0	4	Theory
8	NFMCS08	Flowsheet Design & Plant Layout	3-1-0	4	Theory
9	NFMCS09	Modeling of Mineral Processing Systems	3-1-0	4	Theory
10	NFMCS10	Simulation of Mineral Processing Systems Lab	0-0-3	1.5	Practical
11	NFMCS11	Fines Processing Lab	0-0-3	1.5	Practical
12	NFMCS12	Ferrous Extractive Metallurgy Lab	0-0-3	1.5	Practical
13	NFMCS13	Mechanical Behaviour of Materials	3-1-0	4	Theory
14	NFMCS14	Advanced Thermodynamics and Kinetics	3-1-0	4	Theory
15	NFMCS15	Mechanical Behaviour of Materials Lab	0-0-3	1.5	Practical
16	NFMCS16	Computer Applications in Metallurgical Engineering lab	0-0-3	1.5	Practical
17	NFMCS17	Advanced Physical Metallurgy	3-1-0	4	Theory
18	NFMCS18	Materials Characterization	3-1-0	4	Theory
19	NFMCS19	Advanced Iron-Making Technologies	3-1-0	4	Theory
20	NFMCS20	Materials Processing Lab	0-0-3	1.5	Practical
21	NFMCS21	Materials Characterization Lab	0-0-3	1.5	Practical
22	NFMCS22	Fuel Technology	3-1-0	4	Theory
23	NFMCS23	Alternate Energy Systems	3-1-0	4	Theory
24	NFMCS24	Thermochemical Conversion Lab	0-0-3	1.5	Practical
25	NFMCS25	Energy Technology	3-1-0	4	Theory
26	NFMCS26	CFD of Thermal and Fluid Systems	3-1-0	4	Theory
27	NFMCS27	Processing of Liquid and Gaseous Fuels	3-1-0	4	Theory
28	NFMCS28	CFD of Thermal and Fluid Systems Lab	0-0-3	1.5	Practical
29	NFMCS29	Processing of Liquid and Gaseous Fuels Lab	0-0-3	1.5	Practical
30	NFMCS30	Energy Technology Lab	0-0-3	1.5	Practical
31	NFMCS95	Research Methodology	3-0-0	3	Theory
32	NFMCS96	Research Methodology	3-0-0	3	Audit
33	NFMCS97	Thesis	0-0-0	20	Non-contact
34	NFMCS98	Thesis	0-0-0	20	Non-contact
35	NFMCS99	Thesis	0-0-0	20	Audit

Details of Departmental Elective (DE) Courses

Departmental Elective Courses					
S. No.	Course Code	Course Name	L-T-P	Credit	Course Type
1	NFMD501	Powerplant Engineering	3-0-0	3	Theory
2	NFMD502	Dewatering and Drying	3-0-0	3	Theory
3	NFMD503	Mineral Processing Economics & Project Management	3-0-0	3	Theory
4	NFMD504	Numerical Methods in Metallurgical Engineering	3-0-0	3	Theory
5	NFMD505	Advanced Materials and Applications	3-0-0	3	Theory
6	NFMD506	Metal Forming Technology	3-0-0	3	Theory
7	NFMD507	Stainless Steel Technology	3-0-0	3	Theory
8	NFMD508	Energy Conservation Processes	3-0-0	3	Theory
9	NFMD509	Microwave Processing of Minerals and Fuels	3-0-0	3	Theory
10	NFMD510	Biofuels	3-0-0	3	Theory
11	NFMD511	Combustion Science	3-0-0	3	Theory
12	NFMD512	Thermochemical Conversion of Solid Fuels	3-0-0	3	Theory

Details of Specialized Audit Courses

S. No.	Course Code	Course Name	L-T-P	Credit	Course Type
1	NFMS501	Crystallographic Texture in Metallic Materials	3-0-0	3	Theory/ Audit
2	NFMS502	Fracture, Fatigue and Creep	3-0-0	3	Theory/ Audit