Department of Mathematics & Computing

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	NMCC501	Numerical Linear Algebra	3-1-0	4	Theory
2	NMCC502	Fundamentals of Machine Learning	3-1-0	4	Theory
3	NMCC503	Statistics in Decision Makings	3-1-0	4	Theory
4	NMCC504	Numerical Linear Algebra Lab	0-0-3	1.5	Practical
5	NMCC505	Fundamentals of Machine Learning Practical	0-0-3	1.5	Practical
6	NMCC506	Statistics in Decision Makings Practical	0-0-3	1.5	Practical
7	NMCC507	Advanced DBMS	3-1-0	4	Theory
8	NMCC508	Neural Networks and Deep Learning	3-1-0	4	Theory
9	NMCC509	Advanced Data Structures & Algorithms	3-1-0	4	Theory
10	NMCC510	Advanced DBMS Lab	0-0-3	1.5	Practical
11	NMCC511	Neural Networks and Deep Learning Practical	0-0-3	1.5	Practical
12	NMCC512	Advanced Data Structures & Algorithms Practical	0-0-3	1.5	Practical
13	NMCC513	Probability & Statistics	3-1-0	4	Theory
14	NMCC514	Advanced Algebra	3-1-0	4	Theory
15	NMCC515	Differential Equations	3-1-0	4	Theory
16	NMCC516	Advanced Numerical Methods	3-0-0	3	Theory
17	NMCC517	Data Structures	3-0-0	3	Theory
18	NMCC518	Advanced Numerical Methods Practical	0-0-3	1.5	Practical
19	NMCC519	Data Structures Practical	0-0-3	1.5	Practical
20	NMCC520	Functional Analysis	3-1-0	4	Theory
21	NMCC521	Topology	3-1-0	4	Theory
22	NMCC522	Operating Systems	3-0-0	3	Theory
23	NMCC523	Database Management Systems	3-0-0	3	Theory
24	NMCC524	Operating Systems Practical	0-0-3	1.5	Practical
25	NMCC525	Data Base Management Systems Practical	0-0-3	1.5	Practical
26	NMCC526	Design and Analysis of Algorithms	3-1-0	4	Theory
27	NMCC527	Computational Fluid Dynamics	3-1-0	4	Theory
28	NMCC528	Design and Analysis of Algorithms Lab	0-0-3	1.5	Practical
29	NMCC529	Computational Fluid Dynamics Lab	0-0-3	1.5	Practical
30	NMCC595	Research Methodology	3-0-0	3	Theory
31	NMCC596	Research Methodology	3-0-0	3	Audit
32	NMCC597	Thesis	0-0-0	20	Non-contact
33	NMCC598	Thesis	0-0-0	20	Non-contact
34	NMCC599	Thesis	0-0-0	20	Audit

Details of Departmental Elective (DE) Courses

Departmental Elective (DE) Courses					
S. No.	**Course Code**	**Course Name**	**L-T-P**	**Credit**	**Course Type**
1	NMCD501	Cryptography	3-0-0	3	Theory
2	NMCD502	Data Mining	3-0-0	3	Theory
3	NMCD503	Numerical Optimization	3-0-0	3	Theory
4	NMCD504	Bioinformatics	3-0-0	3	Theory
5	NMCD505	Advanced Algorithms for Graphs	3-0-0	3	Theory
6	NMCD506	Soft Computing Techniques	3-0-0	3	Theory
7	NMCD507	Time series Analysis	3-0-0	3	Theory
8	NMCD508	Big Data	3-0-0	3	Theory
9	NMCD509	Biostatistics	3-0-0	3	Theory
10	NMCD510	GPU Computing	3-0-0	3	Theory
11	NMCD511	Video Analytics	3-0-0	3	Theory
12	NMCD512	Missing data analysis in Survey Sampling	3-0-0	3	Theory
13	NMCD513	SoftwareTesting	3-0-0	3	Theory
14	NMCD514	Stochastic Processes	3-0-0	3	Theory
15	NMCD515	Advanced Multivariate Analysis	3-0-0	3	Theory
16	NMCD516	Numerical Analysis	3-0-0	3	Theory
17	NMCD517	Discrete Mathematics	3-0-0	3	Theory
18	NMCD518	Optimization Techniques	3-0-0	3	Theory
19	NMCD519	Classical Mechanics	3-0-0	3	Theory
20	NMCD520	Graph Theory	3-0-0	3	Theory
21	NMCD521	Integral Equations and Calculus of Variations	3-0-0	3	Theory
22	NMCD522	Measure theory	3-0-0	3	Theory
23	NMCD523	Basic Number Theory	3-0-0	3	Theory
24	NMCD524	Representation Theory of Finite Groups	3-0-0	3	Theory
25	NMCD525	Algebraic Coding Theory	3-0-0	3	Theory
26	NMCD526	Complex Analysis	3-0-0	3	Theory
27	NMCD527	Mathematical Ecology	3-0-0	3	Theory
28	NMCD528	Nonlinear Dynamics and Chaos	3-0-0	3	Theory
29	NMCD529	Methods of Applied Mathematics	3-0-0	3	Theory
30	NMCD530	Sampling Theory	3-0-0	3	Theory
31	NMCD531	Design of Experiments	3-0-0	3	Theory
32	NMCD532	Industrial Statistics	3-0-0	3	Theory
33	NMCD533	Solute Transport Modelling	3-0-0	3	Theory
34	NMCD534	Orbital and Space Flight Mechanics	3-0-0	3	Theory
35	NMCD535	Statistical Inference	3-0-0	3	Theory
36	NMCD536	Finite Field Theory	3-0-0	3	Theory
37	NMCD537	Analytic Number Theory	3-0-0	3	Theory
38	NMCD538	Algebraic Number Theory	3-0-0	3	Theory
39	NMCD539	Wavelets: Theory and Applications	3-0-0	3	Theory
40	NMCD540	Algorithmic Graph Theory	3-0-0	3	Theory
41	NMCD541	Coding Theory	3-0-0	3	Theory
42	NMCD542	Internet of Things (IoT): Systems and Protocols Design	3-0-0	3	Theory
43	NMCD543	Introduction to Commutative Algebra	3-0-0	3	Theory
44	NMCD544	Advanced Ordinary Differential Equations	3-0-0	3	Theory
45	NMCD545	Software Reliability	3-0-0	3	Theory

Details of Specialized Audit Courses

S. No.	Course Code	Course Name	L-T-P	Credit	Course Type
1	NMCS501	Explainable Artificial Intelligence	1-0-0	1	Theory/Audit