

**List of courses to be offered in 2022-23-M semester**

Sr. No.	Course Code	Course Name	Credits	Segment	Instructor Incharge	Other Instructors
<b>Additional Activity</b>						
1	AA101	Essential Physical Activity	1	16	Dr. Purnendu Das	
2	AA102	National Sports Organization	1 to 4	16	Dr. Purnendu Das	
3	AA103	National Service Scheme	1 to 4	16	Dr. Pawan Kumar Mishra	
<b>Core courses in the discipline of Computer Science and Engineering</b>						
1	IC100	Introduction to Programming	6	16	Dr. Sk Subidh Ali	
2	CS100	Software Tools & Technologies Lab I	4	36	Dr. Souradyuti Paul	
3	CS102	Data Structures	4	36	Dr. Amit Kumar Dhar	
4	CS201	Discrete Structures II	2	12	Dr. Barun Gorain	
5	CS204	Computer Organization & Architecture	4	14	Dr. Anil Kumar Sao	
6	CS300	Principles of Programming Languages	6	16	Dr. Subhajit Sidhanta	
7	CS301	Computer Networks	6	16	Dr. Anand M. Baswade	
8	CS499	Thesis (BTech)	6 to 12	16	DUGC EECS	
9	CS550	Machine Learning	6	16	Dr. Gagan Raj Gupta	
10	CS599	Thesis (MTech)	6 to 24	16	DPGC EECS	
11	CS795	PhD Candidacy	0	NA	DPGC EECS	
12	CS799	Thesis (PhD)	6 to 24	16	DPGC EECS	
<b>Elective courses in the discipline of Computer Science and Engineering</b>						
1	CS500	Science of Computation	3	13	Dr. Rishi Ranjan Singh	
2	CS501	Computer Systems (OS, Architecture, Compilers, DBMS)	3	46	Dr. Vishwesh Jatala	
3	CS502	Graph Theory and Applications	6	16	Dr. Vinod Reddy	
4	CS510	Approximation Algorithms	6	16	Dr. Barun Gorain	
5	CS516	Parallelization of Programs	6	16	Dr. Vishwesh Jatala	
6	CS518	Simulation of Biology	2	12	Dr. Arzad Alam Kherani	Dr. Rishi Ranjan Singh, Dr. Rukmankesh
7	CS553	Cryptography	6	16	Dr. Dhiman Saha	
8	CS558	CAD for VLSI	6	16	Prof. Santosh Biswas	
9	CS613	Social and Complex Network Analysis	6	16	Dr. Rishi Ranjan Singh	
<b>Core courses in the discipline of Data Science and Artificial Intelligence</b>						
1	CS550	Machine Learning	6	16	Dr. Gagan Raj Gupta	
2	DS201	Statistical Programming	4	36	Dr. Nitin Khanna	
3	DS499	Thesis (BTech)	6 to 12	16	DUGC EECS	
4	DS599	Thesis (MTech)	6 to 24	16	DPGC EECS	
5	DS795	PhD Candidacy	0	NA	DPGC EECS	
6	DS799	Thesis (PhD)	6 to 24	16	DPGC EECS	
<b>Elective courses in the discipline of Data Science and Artificial Intelligence</b>						
1	DS502	Basic Maths for Data science and Artificial Intelligence	3	46	Dr. Anil Kumar Sao	
2	TP502	Programming for Data science Lab	3	16	Dr. Soumajit Pramanik	
3	TP503	Natural Language Processing	6	16	Dr. Soumajit Pramanik	
<b>Core courses in the discipline of Electrical Engineering</b>						
1	EE101	Digital Signal Processing	4	14	Dr. Arzad Alam Kherani	
2	EE126	EE Independent Project - Part-II	1	12	Dr. Kapil Jainwal	
3	EE171	EE Independent Project	2	14	Dr. Nitin Khanna	
4	EE201	Electronic Devices	4	14	Dr. Kapil Jainwal	
5	EE202	Control Systems - I	6	16	Dr. Avishek Adhikary	

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6	EE203	Embedded Systems	4	14	Prof. Santosh Biswas	
7	EE207	Engineering Electromagnetics	4	14	Dr. Nikhil Chander	
8	EE251	Electrical Engineering Lab - I (Control Lab)	2	36	Dr. Nikhil Chander	Dr. Arzad Alam Kherani
9	EE301	Communication Systems	4	36	Dr. Sreejith T. V	
10	EE351	Electrical Engineering Lab – II (Machine Lab)	2	36	Dr. Prashant Agnihotri	
11	EE499	Thesis (BTech)	6 to 12	16	DUGC EECS	
12	EE599	Thesis (MTech)	6 to 24	16	DPGC EECS	
13	EE795	PhD Candidacy	0	NA	DPGC EECS	
14	EE799	Thesis (PhD)	6 to 24	16	DPGC EECS	
<b>Elective courses in the discipline of Electrical Engineering</b>						
1	EE509	Power Electronics	6	16	Dr. Prashant Agnihotri	
2	EE529	Fundamentals of wireless and cellular communication	6	16	Dr. Sreejith T. V	
3	EE601	Solar Photovoltaic Devices and Systems	6	16	Dr. Nikhil Chander	
4	MT501	Fundamentals of Sensing and Control for Mechatronics	6	16	Dr. Avishek Adhikary	
5	TP506	Machine Learning Applications for Wireless Communications	6	16	Arzad Alam Kherani	Dr. Sreejith T V
<b>Core courses in the discipline of Mechanical Engineering</b>						
1	ME102	Engineering and Machine Drawing	3	16	Dr. Kaushik Bandyopadhyay	
2	ME151	Fundamentals of Metallurgy	3	46	Dr. Rahul Jain	
3	ME212	Fluid Mechanics	6	16	Dr. Udayraj	
4	ME231	Solid Mechanics – I	6	16	Dr. Anshul Faye	
5	ME251	Manufacturing Science – I	6	16	Dr. Soumya Gangopadhyay	Dr. Jose Immanuel R
6	ME333	Theory of Machines and Mechanisms	6	16	Dr. Purnendu Das	
7	ME371	Mechanical Engineering Lab I	3	16	Dr. Anshul Faye	Dr. Udayraj
8	ME372	Mechanical Engineering Lab II	3	16	Dr. Rahul Jain	Dr. Nagesh Devidas Patil & Dr. Pravesh Chandra Shukla
9	ME499	Thesis (BTech)	6 to 12	16	DUGC_ME	
10	ME599	Thesis (MTech)	6 to 24	16	DPGC_ME	
11	ME795	PhD Candidacy	0	NA	DPGC_ME	
12	ME799	Thesis (PhD)	6 to 24	16	DPGC_ME	
<b>Elective courses in the discipline of Mechanical Engineering</b>						
1	EV502	Introduction to Automobiles	3	13	Dr. Rahul Jain	
2	ME353	Total Quality Management	3	46	Dr. Kaushik Bandyopadhyay	
3	ME413	Refrigeration and Air-Conditioning	6	16	Dr. Udayraj	
4	ME512	Advanced Fluid Mechanics	6	16	Dr. Nagesh Devidas Patil	Dr. Balakrishna Mehta
5	ME514	IC Engine	6	16	Dr. Pravesh Chandra Shukla	
6	ME535	Theory of Elasticity	6	16	Dr. Anshul Faye	
7	ME551	Advanced Manufacturing Processes	6	16	Dr. Rahul Jain	
8	ME552	Knowledge Based Systems	3	13	Dr. Kaushik Bandyopadhyay	
9	ME553	Advanced Materials and Processing	3	46	Dr. Jose Immanuel R	
10	ME557	Laser materials processing	6	16	Dr. Kaushik Bandyopadhyay	
11	ME558	Surface Engineering	6	16	Dr. Soumya Gangopadhyay	Dr. Purnendu Das
12	ME559	Mechanical Behaviour of Materials	3	13	Dr. Jose Immanuel R	
13	ME601	Applied Numerical Methods	6	16	Dr. Vijay S Duryodhan	
14	ME615	Computational Fluid Dynamics	6	16	Dr. Vijay S Duryodhan	

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Sr. No.	Course Code	Course Name	Credits	Segment	Instructor Incharge	Other Instructors
<b>Core courses in the discipline of Liberal Arts</b>						
1	LA799	Thesis (PhD)	6 to 24	16	DPGC LA	
2	LA795	PhD Candidacy	0	NA	DPGC LA	
<b>Elective courses in the discipline of Liberal Arts</b>						
1	LA303	Chinese Beginner's 1	1	11	Ms. Hao Yu LU	
2	LA305	City in Literature	4	14	Dr. Anubhav Pradhan	
3	LA311	Chinese Beginner's 3	2	34	Ms. Hao Yu LU	
4	LA312	Chinese Beginner's 4	2	56	Ms. Hao Yu LU	
5	LA315	Chinese Beginner's 2	1	22	Ms. Hao Yu LU	
6	LA321	Macroeconomics	2	34	Dr. Sitakanta Panda	
7	LA323	Introduction to Popular Culture	2	12	Dr. Sonal Jha	
8	LA329	Selected Topics on Indian Economy	2	12	Dr. Sitakanta Panda	
9	LA332	Chinese Culture	1	55	Ms. Hao Yu LU	
10	LA333	Chinese Calligraphy	1	33	Ms. Hao Yu LU	
11	LA347	Introduction to Organizational Behaviour	2	56	Dr. Anindita Ghosh	
12	LA349	Contemporary Indian Cinema: Beyond Bollywood	2	34	Dr. Sonal Jha	
13	LA701	Econometric Methods	6	16	Dr. Sitakanta Panda	
14	LA702	Advanced Positive Psychology	6	16	Dr. Anindita Ghosh	
15	LA703	Positive Organizational Behaviour	6	16	Dr. Anindita Ghosh	
16	LA705	Cultural Studies: Theory and Practice	6	16	Dr. Sonal Jha	
17	LA706	Development Economics	6	16	Dr. Sitakanta Panda	
18	LA710	Modern Indian Literature: Currents and Countercurrents	6	16	Dr. Anubhav Pradhan	
19	LA798	Independent Study: Literary and Cultural Studies	6	16	Dr. Sonal Jha	
20	LA798	Independent Study: Development Economics	6	16	Dr. Sitakanta Panda	
21	LA798	Independent Study: Positive Psychology	6	16	Dr. Anindita Ghosh	
22	LA798	Independent Study: Literary and Urban Studies	6	16	Dr. Anubhav Pradhan	
23	TP504	Applied Positive Psychology	2	12	Dr. Anindita Ghosh	
<b>Core courses in the discipline of Chemistry</b>						
1	CA200	Professional Communication Lab-III- Technical Literature Structure	1	56	Dr. Satyajit Gupta	Dr. Sonal Jha
2	IC300	Materials Chemistry III	2	12	Dr. Satyajit Gupta	
3	CY502	Chemical Kinetics and Surface Science	4	36	Dr. Satyajit Gupta	
4	CY503	Coordination Chemistry	6	16	Dr. Ramasamy Mayilmurugan	Dr. Raghavender Medishetty
5	CY504	Chemistry of Main Group Elements	6	16	Dr. Arup Mukherjee	Dr. Raghavender Medishetty
6	CY505	Organic Reactions and Reagents	6	16	Dr. Sanjib Banerjee	Dr. Ganapathy D
7	CY516	Mathematics for Chemists	4	14	Dr. MD. Mehboob Alam	
8	CY517	Basics of Molecular Biology	4	14	Dr. Rukmankesh	
9	CY518	Quantum Chemistry	4	36	Dr. MD. Mehboob Alam	
10	CY515	Computations in Chemistry	2	56	Dr. Rukmankesh	
11	CY603	Organometallic Chemistry: Principles and Applications	6	16	Dr. Arup Mukherjee	
12	CY604	Solid State Chemistry	4	36	Dr. Raghavender Medishetty	
13	CY605	Advanced Organic Chemistry	6	16	Dr. Ganapathy D	
14	CY607	Interpretative Molecular Spectroscopy	6	16	Dr. Suchetan Pal	
15	CY699	Thesis	6	16	DPGC-CY	
16	CY795	PhD Candidacy	0	NA	DPGC-CY	
17	CY799	PhD Thesis	6 to 24	16	DPGC-CY	

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Sr. No.	Course Code	Course Name	Credits	Segment	Instructor Incharge	Other Instructors
<b>Elective courses in the discipline of EVT</b>						
1	EV501	Electric Vehicles: Policies and Regulations	3	13	Dr. Ramasamy Mayilmurugan	
2	EV502	Introduction to Automobiles	3	13	Dr. Rahul Jain	
3	EV503	Basics of Electrical Engineering	3	13	Dr. Nitin Khanna	
4	EV504	Energy Storage Materials and Technologies	3	13	Dr. Raghavender Medishetty	
5	EV505	Hybrid and Electric Vehicles	3	46	Dr. Pravesh C. Shukla	
6	EV506	Battery Chemistry, Components and Manufacturing	3	46	Dr. Sanjib Banerjee	
7	EE509	Power Electronics	6	16	Dr. Prashant Agnihotri	
8	EV601	Advanced Automobile Technologies	3	46	Dr. Nagesh Devidas Patil	
9	IC601	Research Methodology	6	16	Dr. Suchetan Pal	
<b>Core courses in the discipline of Mathematics and Computing</b>						
1	MA500	Real Analysis	6	16	Dr. Arnab Patra	
2	MA501	Linear Algebra	6	16	Dr. Raj Kumar Mistri	
3	MA502	Modern Algebra	4	14	Dr. Anuj Jakhar	
4	MA503	Introduction to Probability Theory	4	14	Dr. Kuldeep Kumar Kataria	
5	MA504	Differential Equations	4	14	Dr. Pawan Kumar Mishra	
6	MA605	Operations Research	4	14	Dr. Asrifa Sultana	
7	MA609	Numerical Optimization Techniques	2	56	Dr. Pawan Kumar Mishra	
8	MA699	MSc Thesis	6	16	DPGC_MA	
9	MA795	PhD Candidacy	0	NA	DPGC_MA	
10	MA799	PhD Thesis	6 to 24	16	DPGC_MA	
<b>Elective courses in the discipline of Mathematics and Computing</b>						
1	MA509	Statistical Inference	6	16	Dr. Lakshmi Kanta Patra	
2	MA516	Enumerative Combinatorics	6	16	Dr. Anurag Singh	
3	MA608	Martingale Theory	6	16	Dr. Kuldeep Kumar Kataria	
4	MA614	Introductory Additive Number Theory	6	16	Dr. Raj Kumar Mistri	
<b>Elective courses in the discipline of Mechatronics</b>						
1	EE509	Power Electronics	6	16	Dr. Prashant Agnihotri	
2	CS558	CAD for VLSI	6	16	Prof. Santosh Biswas	
3	ME551	Advance Manufacturing Process	6	16	Dr. Rahul Jain	
4	MT501	Fundamentals of Sensing and Control for Mechatronics	6	16	Dr. Avishek Adhikary	
5	MT502	Fundamentals of Mechanical Engineering for Mechatronics	6	16	Dr. Purnendu Das	Dr. Balkrishna Mehta
<b>Core courses in the discipline of Physics</b>						
1	IC200	Introduction to Astronomy and Astrophysics	4	36	Dr. Mahavir Sharma	
2	PH501	Classical Mechanics	6	16	Dr. Sabyasachi Ghosh	
3	PH502	Quantum Mechanics-I	6	16	Dr. Sabyasachi Ghosh	
4	PH503	Mathematical Physics	6	16	Dr. Sudhanwa Patra	
5	PH504	Computational Physics	6	16	Dr. MD. Mehboob Alam	
6	PH505	Electronics Laboratory	6	16	Dr. Dhriti S. Ghosh	
7	PH508	Electrodynamics	6	16	Dr. Dhriti S. Ghosh	
8	PH511	Atomic and Molecular Physics	6	16	Dr. Mahavir Sharma	
9	PH512	Solid State Physics	6	16	Dr. Sessa Vempati	
10	PH699	MSc Thesis	6	16	DPGC_PH	

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11	PH795	PhD Candidacy	0	NA	DPGC_PH	
12	PH799	PhD Thesis	6 to 24	16	DPGC_PH	
Elective courses in the discipline of Physics						
1	PH514	Electronics	6	16	Dr. Dhriti S. Ghosh	