

PhD course list

Computer Science & Engineering

Course Code	Course Name	Credit Structure				
		L	T	P	C	
CS 540	Fundamentals of Computing Systems Design	3	0	3	9	Mtech core/ PhD core
EE 611	Applied Linear Algebra in Electrical Engineering (UG Institute elective 7 th sem/ Mtech core /PhD course)					
CS 510	Foundations of Theoretical Computer Science	3	0	0	6	Mtech core
	Elective I	3	0	0	6	

Electives	Course Number	L	T	P	Credits	Semester
Model Checking and Software Verification	CS 570	3	0	0	6	UG V, UG VII, PG-I, PhD
Modeling and Simulation of Systems	CS 572	3	0	0	6	UG V, UG VII, PG-I, PhD
Markov chains and their Applications	CS 462/ CS 662	3	0	0	6	UG VII, PG, PhD
Foundation of Probability	MA 605	3	0	0	6	

PG Seminar Course	Course Number	L	T	P	Credits	Comments	Semester
Graduate Seminar	CS 750	0	0	0	4	Dr. George	PG

*New credit system

Electrical Engineering

Course Code	Course Name	Credit Structure			
		L	T	P	C
EE 611	Applied Linear Algebra in Electrical Engineering (UG Institute elective 7 th sem/ Mtech core /PhD course)	2	1	0	6
EE 601	Introduction to Switched Electrical Circuits (UG 7 th sem Dept elective/ Mtech core/ PhD course)	2	1	0	6
EE 602	Advanced Digital Signal Processing (UG 7 th sem Dept elective/ Mtech core /PhD course)	2	1	0	6
EE 603	Sensors and Analog Interfacing Circuits (UG 7 th sem Dept elective /Mtech core / PhD course)	2	1	0	6

Mechanical Engineering

Course Code	Course Name	Credit Structure			
		L	T	P	C
ME610	Mathematical Methods PhD 2019 core/ Mtech core/	2	1	0	6
ME613	Continuum Mechanics Mtech core/ UG ELECTIVE	2	1	0	6
ME614	Thermofluids Engineering Mtech core	2	1	0	6
ME606	Computer integrated Manufacturing Mtech core/ UG ELCTIVE	2	1	0	6
ME 615	Finite Element Analysis	3	0	0	6

Physics

Compulsory PhD courses for all January 2019 enrolled students

Elective course for all January 2019 enrolled students

Course Code	Course Name	Credit Structure			
		L	T	P	C
PH 804	Research Methodology	1	0	0	2
PH 805	Project Work and Presentation *	--	--	--	8
PH 807	Physics of Materials	3	1	0	8
PH 808	Field Theory	3	1	0	8
	Total Credits				

Compulsory PhD courses for all newly joined (July 2019) students

Course Code	Course Name	Instructor	Credit Structure			
			L	T	P	C
PH 803	Topical Literature Review *	-- Seminar	--	--	3	3

Chemistry

Course Code	Course Name	Credit Structure			
		L	T	P	C
CH801	Trends in Chemistry	3	0	0	6
CH 813	Advanced Organometallic Chemistry	3	0	0	6
CH 843	Methods in Organic Synthesis	3	0	0	6
CH 871	Quantum chemistry	3	0	0	6
	Total Credits				

Humanities

Course Code	Course Name	Credit Structure			
		L	T	P	C
HS 801	Topics in Time Series Econometrics	3	0	0	6
HS 802	Research Methods	3	0	0	6
HSS 811	Seminar I				4
HSS 812	Seminar II				4

Mathematics

Core course

Course Code	Course Name	Credit Structure			
		L	T	P	C
MA601	Graduate course in Analysis	3	0	0	6
MA606	Advanced Partial Differential Equations	3	0	0	6
MA608	Computational Finance: A PDE approach	3	0	0	6