

SUMMARY OF COURSES OFFERED

STATISTICS & OPERATIONS RESEARCH SUBJECT AREA

Course Number	Course Title	No: of Credits	Prerequisites	Compulsory Courses
100 Level				
ST 101	Introduction to Statistics	3		√
ST 102	Introduction to Probability Theory	3		√
ST 103	Statistics Applications I	1	ST 101 or any other basic statistics course	√
ST 104	Statistics Applications II	1	ST 101 or any other basic statistics course	√
CS 101	Introduction to Computer Science	3		√
CS 102	Programming Techniques	3		√
CS 104	Structured oriented Programming practical	1	CS 101, CS 102	√
CS 105	Object oriented Programming practical	1	CS 101, CS 102	√
MT105	Real Analysis I	3		√
MT 107	Mathematics for Operations Research	3		√
MT 108	Operations Research I	2		√
MT 109	Linear Programming	3	MT 107, MT 108	√

200 Level				
ST 201	Probability Theory	3	ST 102	√
ST 203	Theory of Statistics	3	ST 201	√
ST 204	Sampling Techniques	2	ST 203	
ST 205	Statistical Simulation	2	CS 102, CS 104, CS 105, ST 203	√
ST 206	Introduction to Data Mining	2	CS 101, ST 101	
CS 201	Data Structures	2	CS 101, CS 104, CS 105	√
CS 202	Data Structures Practicals	1	CS 104, CS 105, CS 201	√
CS 203	Database Management Systems	2	CS 101, CS 104, CS 105	√
CS 204	Programming using Database Management Systems	1	CS 104, CS 105, CS 202, CS 203	√
MT 202	Real Analysis II	3	MT 105	
MT 204	Mathematical Methods	3	MT 107	
MT 209	Graph Theory	2		
MT 210	Advanced Linear Programming	3	MT 109	√
MT 211	Integer Programming	3	MT 210	√
MT 212	Operations Research II	2	MT 109	√

300 Level				
ST 301	Regression Analysis	3	ST 203	√
ST 302	Statistical Quality control	2	ST 203	√
ST 303	Design and Analysis of Experiments	3	ST 203	
ST 305	Multivariate Methods I	2	ST 203	√
ST 306	Data Analysis & Preparation of Reports	1	ST 301, ST 302	√
ST 307	Time Series Analysis	2	ST 203, ST 301	√
ST 308	Bayesian Statistics I	2	ST 203	√
ST 309	Non Parametric and Categorical Data analysis	3	ST 203	
ST325 /MT325	Seminar	1	ST 306, ST307	√
CS 315	Design and Analysis of Algorithms	2	CS 201, CS 202	√
MT 304	Partial Differential Equations	2	MT 103	
MT 313	Convex Analysis	2	MT 202	
MT 314	Network Optimization Theory	3	MT 210	√
MT 315	Operations Research III	2	MT 109, MT 314	√

MT 316	Non-Linear Programming	3	MT 210	√
400 Level				
ST 401	Actuarial Statistics	2	ST 203	√
ST 402	Statistical Data Mining	3	ST 206, ST 305	√
ST 403	Statistics for Bioinformatics	2	CS 201, CS 202	
ST 404	Stochastic Processes	2	ST 201, ST 203	
ST 405	Multivariate Methods II	2	ST 305	√
ST 406	Bayesian Statistics II	2	ST 308	
CS 401	Artificial Intelligence and Expert Systems	3	CS 201, CS 202, CS 315	
CS 409	Neural networks and Fuzzy logics	3	CS 201, CS 202, CS 315	
MT 409	Selected Topics in Applied Operations Research	2	MT 315, MT 316	
MT 410	Optimization for Engineering Design	3	MT 315, MT 316	√
MT 411	Optimization Modeling	2	MT 315, MT 316	√
MT 412	Financial Mathematics	3		√
ST425/MT 425	Project work/Industrial training	3		√