

Annexure - I

Curriculum

Programme : **Proposed - M.Sc., (Data Science)**

Duration : **2 Years - Regular**

Total Credits : **80**

Credits Distribution

University Core - UC	29
University Elective -UE	6
Programme Core - PC	23
Programme Elective - PE	22
Total Credits	80

University Core (UC)							
Course Code	Course Title	Type	L	T	P	J	C
MATXXX	Matrix Theory and Linear Algebra	Theory	2	2	0	0	3
ENG5003	English for Science and Technology	Basket	0	0	4	0	2
FRE5001	Francais fonctionnel	Basket	2	0	0	0	2
GER5001	Deutsch fuerAnfaenger	Basket	2	0	0	0	2
STS4001	Essentials of Business Etiquettes	Basket	3	0	0	0	1
STS4002	Preparing for Industry	Basket	3	0	0	0	1
SET5001	Science, Engineering and Technology Project - I	Project	0	0	0	0	2
SET5002	Science, Engineering and Technology Project - II	Project	0	0	0	0	2
SET5003	Science, Engineering and Technology Project - III	Project	0	0	0	0	2
RES5001	Research Methodology	Embedded-Theory & Project	1	0	0	4	2
MATXXX	Master Thesis	PJT	0	0	0	0	14
	Total Credits						33

University Elective (UE)							
Course Code	Course Title	Type	L	T	P	J	C
ITE 6013	Big- data analytics	Embedded-Theory & Project	3	0	0	4	4
CSE 5003	Database systems: Design and Implementation	Embedded-Theory, Lab & Project	2	0	2	4	4
CSE 5001	Algorithms: Design and Implementation	Embedded-Theory & Lab	2	0	2	0	3
CSE 6005	Machine Learning	Embedded-Theory, Lab & Project	2	0	2	4	4
ITA 5007	Data Mining and Business Intelligence	Embedded-Theory & Project	3	0	0	4	4
	Total Credits						6/23

Programme Core (PC)							
Course Code	Course Title	Type	L	T	P	J	C
MAT XXXX	Probability Theory and Distributions	Theory	3	0	2	0	4
MAT XXXX	Sampling Techniques	Embedded-Theory & Project	2	2	0	0	3
MAT XXXX	Statistical Inference	Theory	3	0	2	0	4
MAT XXXX	Regression Analysis and Predictive Models	Embedded-Theory & Lab	3	0	2	0	4
MAT XXXX	Multivariate Data Analysis	Embedded-Theory & Lab	3	0	2	0	4
MAT XXXX	Time series analysis and Forecasting	Embedded-Theory & Lab	3	0	2	0	4
	Total Credits						23

Programme Elective (PE)							
Course Code	Course Title	Type	L	T	P	J	C
MATXXXX	Python Programming for Data Science	Embedded-Theory, Lab & Project	2	0	2	4	4
MATXXXX	Programming for Data Science using R	Embedded-Theory, Lab & Project	2	0	2	4	4
MATXXXX	Programming for Data Science using SPSS	Embedded-Theory, Lab & Project	2	0	2	4	4
MATXXXX	Programming for Data Science using SAS	Embedded-Theory, Lab & Project	2	0	2	4	4
MATXXXX	Programming for Data Science using MATLAB	Embedded-Theory, Lab & Project	2	0	2	4	4
MATXXXX	Programming for Data Science using MINITAB	Embedded-Theory, Lab & Project	2	0	2	4	4
MATXXXX	Design and Analysis of Experiments	Embedded-Theory & Lab	3	0	2	0	4
MATXXXX	Optimization Techniques	Embedded-Theory & Project	3	0	0	4	4
MATXXXX	Statistical Quality Control	Embedded-Theory & Project	2	2	0	4	4
MATXXXX	Stochastic Process and Applications	Theory	3	2	0	0	4
MATXXXX	Reliability Theory and Survival Analysis	Embedded-Theory & Lab	3	0	2	0	4
MATXXXX	Queuing Theory and Network Analysis	Theory	3	2	0	0	4
MATXXXX	Bio-Statistics	Embedded-Theory & Lab	3	0	2	0	4
MATXXXX	Actuarial statistics	Embedded-Theory & Project	2	0	0	4	3
MATXXXX	Artificial Intelligence	Embedded-Theory, Lab & Project	2	0	2	4	4
MATXXXX	Spatial data analytics	Theory	2	2	0	0	3
MATXXXX	Exploratory Data Analysis and Visualization	Embedded-Theory & Lab	2	0	2	0	3
MATXXXX	Fuzzy Statistics	Theory	2	2	0	0	3
	Total Credits						60