Bachelor of Science in Applied Statistics and Analytics
School of Advanced Sciences

Programme Credit Structure	B.Sc.	B.Sc. Hons.
University Core Courses	29	41
Programme Core Courses	60	80
Programme Elective	24	32
University Elective	9	9
Total Graded Credit Requirement	122	162

University Core [29+12 = 41]

Course Code	Course Title	T	P	C
ENG1011	Foundation on Structures of English Language	3	0	3
ENG1014	Enhancing English Communication Skills	3	0	3
INL1101	Foundations of Hindi Language	2	0	2
INL1002	Business Communication	2	0	2
FRL1001	Basic French	2	0	2
FRL2001	Proficiency in French	2	0	2
FRL1004	Basic Spanish	2	0	2
FRL2002	Proficiency in Spanish	2	0	2
FRL2004	Korean for Beginners I	2	0	2
FRL2008	Korean for Beginners II	2	0	2
FRL1005	German for Beginners	2	0	2
BAP	German for Advanced Learners	2	0	2
LIB1113	Critical Reading and Writing	3	0	3
PSY	Physical Education		P/F	
Skill Enhancement Courses (9 Credits)				
PSYXXX	Social Psychology	3	0	3
LIBXXX	Cyber security, Data Privacy and Cyber Laws	2	2	3
STSXXX	Aptitude and reasoning skills	3	0	3
XXXX	Leadership & Personality Development	2	0	2
MGTXXX	Entrepreneurship for Data Professionals	2	0	2
Value Added Courses (8 Credits)				
MATXXX	Introduction to computational biology	0	4	2
MGT1001	Ethics and Values	2	0	2
CHY1002	Environmental Sciences		P/F	
LIB1023	Indian Studies	2	0	2
HUM1013	Universal Human Values	2	0	2
CHYXX	Introduction to computer-aided drug design	2	0	2
XXXX	design Statistics in sports	2	0	2
XXXX	Cultural and heritage education	2	0	2
Project (16 Credits)				
XXXX	Internship	0	4	4
XXXX	Dissertation	12	0	12
	Co/Extra Curricular [Compulsory] NSS/ NCC	2	0	2

Programme Core (60+20 = 80 Credits)

Major (Applied Statistics)

MAT	Descriptive Statistics	4	0	4
MAT	Calculus	4	0	4
CSE	Python for data analysis	3	2	4
CSE	Database management & SQL	3	2	4
MAT	Discrete Mathematics	4	0	4
MAT	Probability and distribution theory	4	0	4
MAT	Regression analysis -I	3	2	4
MAT	Data analysis using Excel and SPSS	3	2	4
MAT	Statistical Inference-I	3	2	4
MAT	Sampling techniques	3	2	4
MAT	Linear algebra	4	0	4
CSE	Data structures for analytics	3	2	4
MAT	Statistical Inference-II	3	2	4
MAT	Design of experiments	4	0	4
MAT	Regression analysis-II	3	2	4
MAT	Stochastic Processes	4	0	4
MAT	Time series analysis	3	2	4
MAT	Statistical Quality Control	4	0	4
MAT	Multivariate data analysis	3	2	4
MAT	Vital statistics	4	0	4

Programme Electives (24+8 = 32 Credits)

Minor 1 (Mathematics)

MAT	Modern Algebra	4	0	4
MAT	Ordinary and Partial Differential Equations with Applications	4	0	4
MAT	Operations Research	3	2	4
MAT	Numerical Analysis	4	0	4
MAT	Introduction to Number theory and Cryptography	4	0	4
MAT	Mathematical Finance	4	0	4
MAT	Fuzzy Sets and Applications	4	0	4
MAT	Mathematical Modelling	4	0	4

Minor 2 (Analytics)

CSE	Data Wrangling & Visualization	3	2	4
CSE	Introduction to Machine Learning	3	2	4
CSE	Deep Learning & Neural Networks	3	2	4
CSE	Big data Analytics	3	2	4
CSE	NLP & text analytics	3	2	4
CSE	Image Analytics and Vision Systems	3	2	4
CSE	Cloud Computing for Analytics	3	0	3
CSE	Generative AI Fundamentals	3	0	3

University Electives (9+0+0 = 9 Credits)

Multidisciplinary courses which students are free to choose from courses offered by other schools/departments in the university.

Engineering |Sciences | Humanities | Social Sciences | Liberal arts | Economics | Finance | Management