

**Scheme of BSc Mathematics with specialization in Data Science 2020-23**

Sem	Course 1	Course 2	Course 3	Course 4	Course 5	Course 6	Course 7	Comm. services	GP	Cont. hrs. <sup>a</sup>	Cred. <sup>a</sup>
I	CLL 101 Effective Communication-I 2.5(2-0-1)	MAL 151 Engineering Maths 1 4(3-0-2)	PYL 102N Fundamentals of Physics 4(3-0-2)	ENL101 Statistics & Research Methodology-I (4-0-0)4	CHL100 Environmental Studies 3(3-0-0)	CSL106 FOCP-I 4 (2-0-4)		MAS 100 CS-I (70hrs)	MAR 100 (1)	26	22.5
II	CLL 102 Effective Communication-II 2.5(2-0-1)	BSL102 FINE ARTS (1-0-2)2	PCL102 Psychology for living (2-1-0)3	MAL 152 Engineering Maths II 4(3-0-2)	CSL108 FOCP-II (2-0-4)4	BSL101 Entrepreneurship (2-0-2)3	CLL 120 HVPE 2(2-0-0)	MAS 102 CS-II (70 hrs) (2 Crdt)	MAR 111 (1)	26	23.5
III	MAL 102 Analysis I 4(3-1-0)	MAL 313 Integral & Vector Calculus 4(3-1-0)	PE 1 CSL209 Data Structures 4(3-0-2)	PE 2 CSL 225 Programming for Data Science 4 (2-0-4)	Open Elective I 3(3-0-0)	MAL 304N Probability and Statistics 4(3-1-0)		MAS 200 CS-III	MAR 200 (1)	26	24
IV	MAL 104 Differential Equations I 4(3-1-0)	PE 3 MAL209 Data Analysis 4 (3-0-2)	PE 4 DBMS 4(3-0-2)	PE 5 CLL227 Applied Computational Statistics 4(2-0-4)	Open Elective II 3(3-0-0)	Foreign Language 3(1-2-0)		MAS 202 CS-IV (140 hrs) * (2 Crdt)	MAR 210 (1)	26	25
	MAI 240 Summer Internship 3(0-0-6)										3
V	MAL 208 Linear Algebra 4(3-1-0)	MAL 206N Mathematical Statistics 3(2-0-2)	PE 6 CSL236 Introduction to AI and ML 4 (3-0-2)	PE 7 CSL232 Business Intelligence and Data Visualization 4(2-0-4)	Open Elective III 3(3-0-0)	MAD 350 Project 4(0-0-8)		MAS 301 CS-V	MAR 300 (1)	22	23
VI	MAL 310 Numerical Analysis 3(2-0-2)	CLP300 Campus to Corporate (1-0-0)1	PE 8 CSL313 Machine Learning 4(2-0-4)	PE 9 CSL311 Big Data 4(2-0-4)	Open Elective IV 3(3-0-0)	MAD 360 Project 4(0-0-8)		MAS 302 CS-VI (140 hrs) (2 Crdt)	MAR 310 (1)	19	22
	Total									145	143

\*Students can utilize the entire year including the summer/break period for completing 140 community service hours.