

CURRICULUM

B.Sc. (Hons.) Mathematics

School of Basic and Applied Sciences

Galgotias University, Uttar Pradesh

Batch: 2019-22

Course Structure

S. No.	Category	Credits
1	Program Core (PC)	102
2	Discipline Specific Electives(DSE)	12
3	Generic Electives(GE)	10
4	Ability Enhancement Courses(AEC)	8
5	Project	6
	Total Credits	138

SEMESTERWISE DISTRIBUTION OF COURSES & CREDITS

Courses/ (Credits)	Sem-I	Sem-II	Sem-III	Sem-IV	Sem-V	Sem- VI	Total No. of Courses	Total credits
PC (Theory)	4	4	5	4	3	2	22	88
PC (Practicals)	1	1	1	-	2	-	5	14
DSE	--	--	---	1	1	1	3	12
GE	-	-	-	1	1	-	2	10
AEC	2	1	--	--	--	--	3	8
Project	-	-	-	-	-	1	1	6
Total No. of Course/ Sem.	7	6	6	6	7	4	36	-
Total Credits /Semester	22	22	22	22	25	25	---	138

First Year**Semester-I**

Subject Code	Subject	L	T	P	C
BSCM1001	Calculus- I	4	1	-	4
BSCM1002	Algebra and Number Theory	4	1	-	4
BSCM1003	Fundamentals of Computer and C-programming	4	-	-	4
BSCM1013	C-programming Lab	-	-	4	2
BSCM1004	Econometrics	4	1	-	4
BSCM1005	Professional Communication	3	-	-	3
BSCM1015	Professional Communication Lab	-	-	2	1
TOTAL CREDIT					22

Semester-II

Subject Code	Subject	L	T	P	C
BSCM1006	Calculus –II	4	1	-	4
BSCM1016	Calculus- Lab	-	-	4	2
BSCM1007	Analytical Geometry	4	1	-	4
BSCM1008	Abstract Algebra	4	1	-	4
BSCM1009	Environment Science	4	-	-	4
BSCM1010	Discrete Structures	4	1	-	4
TOTAL CREDIT					22

Second Year
semester-III

Subject Code	Subject	L	T	P	C
BSCM2001	Real Analysis-I	4	1	-	4
BSCM2002	Ordinary Differential Equations	4	1	-	4
BSCM2003	Linear Algebra	4	1	-	4
BSCM2004	Programming using Python	4	-	-	4
BSCM2014	Python Lab	-	-	4	2
BSCM2005	Fundamentals of data science	4	1	-	4
TOTAL CREDIT					22

Semester-IV

Subject Code	Subject	L	T	P	C
BSCM2006	Partial Differential Equations	4	1	-	4
BSCM2007	Complex Analysis	4	1	-	4
BSCM2008	Transforms and it applications	4	1	-	4
BSCM2009	Probability and Statistics	4	-	-	4
BSCM2019	Probability and Statistics Lab in R	-	-	4	2
BSCM****	Discipline Elective-I	4	1		4
TOTAL CREDIT					22

Third Year
Semester-V

Subject Code	Subject	L	T	P	C
BSCM3001	Real Analysis-II	4	1	-	4
BSCM3002	Operations Research	4	-	-	4
BSCM3012	Operations Research Lab	-	-	4	2
BSCM3003	Numerical Methods	4	-	-	4
BSCM3013	Numerical Methods Lab	-	-	4	2
BSCM****	Discipline Elective- II	4	1	-	4
BSCM****	Generic Elective-I	4		2	5
TOTAL CREDIT					25

Semester-VI

Subject Code	Subject	L	T	P	C
BSCM3004	Fuzzy Logic and systems	4	1	-	4
BSCM3005	Advanced Statistical Methods and tools	4	-	-	4
BSCM3015	Advanced Statistical Methods and tools lab	-	-	4	2
BSCM****	Discipline Elective III	4	1	-	4
BSCM****	Generic elective-II	4	-	2	5
BSCM9998	Project	-	-	-	6
TOTAL CREDIT					25

Basket of Discipline Specific Electives (DSE)

Group	Sl. No.	Course Code	Course Title	Contact Hrs. L-T-P	Credits C
Elective I	1	BSCM2010	Graph Theory	4-1-0	4
	2	BSCM2011	Bio-Mathematics	4-1-0	4
	3	BSCM2012	Ring Theory	4-1-0	4
Elective II	1	BSCM3006	Coding Theory	4-1-0	4
	2	BSCM3007	Differential Geometry & Tensors	4-1-0	4
	3	BSCM3008	Dynamical Systems	4-1-0	4
	4	BSCM3009	Financial Mathematics	4-1-0	4
Elective III	1	BSCM3010	Mathematical Modeling & Simulation	4-1-0	4
	2	BSCM3011	Financial Mathematics	4-1-0	4
	3	BSCM3014	Cryptography and Network Security	4-1-0	4
	4	BSCM3016	Application of Algebra	4-1-0	4

Basket of Generic Electives (GE)

Group	Sl. No.	Course Code	Course Title	Contact Hrs. L-T-P	Credits C
Elective I	1	BSCM3017	Data Structure and Algorithms(With Lab)	4-1-0	4
	2	BSCM3018	Web designing and Cloud computing (With Lab)	4-1-0	4
	3	BSCM3019	Computer Graphics(with Lab)	4-1-0	4
	4	BSCM3020	Theory of Automata (With Lab)	4-1-0	4
Elective II	1	BSCM3021	Artificial Intelligence (With Lab)	4-1-0	4
	2	BSCM3022	Machine Learning (With Lab)	4-1-0	4
	3	BSCM3023	Computer vision (With Lab)	4-1-0	4
	4	BSCM3024	Neural Network(With Lab)	4-1-0	4