

Curriculum for B.S. in Mathematics

Semester I:

	Course No.	Course Title	L	T	E	P	O	C	Cat
1	MA New	One Variable Calculus	3	1	0	0	6	10	P
2	PH1010	Physics I	3	1	0	0	6	10	S
3	PH1030	Physics Lab	0	0	0	3	1	4	S
4	MA2101	Linear Algebra via Matrices	3	0	0	0	6	9	S
5	MA New	Introduction to Scientific Computing	3	0	0	3	6	12	C
6	GN1101	Life Skills I	0	0	0	0	4	4	GN
7	GNXXX	NCC/NSO	0	0	0	0	2	2	GN
8	ID1200	Ecology and Environment	2	0	0	0	0	2	GN
9	ID1300	Recreation – I	0	0	0	0	2	2	GN
		Credits for Semester I						55	

Semester II:

	Course No.	Course Title	L	T	E	P	O	C	Cat
1	MA New	Foundations in Mathematics	3	0	0	0	6	9	P
2	CY1001	Chemistry I	3	1	0	0	6	10	S
3	CY1002	Chemistry Lab I	0	0	0	3	1	4	S
4	MA2102	Differential Equations	3	0	0	0	6	9	S
5	HSXXX	Humanities Elective I	3	1	0	0	6	10	H
6	GN1101	Life Skills II	0	0	0	0	4	4	GN
7	GNXXX	NCC/NSO II	0	0	0	0	2	2	GN
8	ID1300	Recreation – II	0	0	0	0	2	2	GN
		Credits for Semester II						50	

Semester III

	Course No.	Course Title	L	T	E	P	O	C	Cat
1	MA Mod	Multivariable Calculus	3	1	0	0	6	10	P
2	MA New	Elementary Number Theory	3	1	0	0	6	10	P
3	MA New	Mathematics Lab I	0	0	0	4	4	8	P
4	MA Mod	Linear Algebra	3	1	0	0	6	10	P
5	MA Mod	Real Analysis	3	1	0	0	6	10	P
6	MA New	Ordinary Differential Equations	3	1	0	0	6	10	P

7	HS3050	Professional Ethics	2	0	0	0	0	2	GN
		Credits for Semester III						60	

Semester IV

	Course No.	Course Title	L	T	E	P	O	C	Cat
1	MA New	Basic Algebra	3	1	0	0	6	10	P
2	MA Mod	Enumerative Combinatorics	3	1	0	0	6	10	P
3	MA Mod	Introduction to Probability	3	1	0	0	6	10	P
4	MA Mod	Topology	3	1	0	0	6	10	P
5	MA Mod	Complex Analysis	3	1	0	0	6	10	P
6	MA Mod	Measure and Integration	3	1	0	0	6	10	P
		Credits for Semester IV						60	

Semester V

	Course No.	Course Title	L	T	E	P	O	C	Cat
1	MA Mod	Group, Rings and Modules	3	1	0	0	6	10	P
2	MA New	Differential Geometry	3	1	0	0	6	10	P
3	MA New	Foundations of Statistical Thinking	3	1	0	0	6	10	P
4	MA XXXX	Math Elective I	3	0	0	0	6	9	P
5	MA New	Mathematics Lab II	0	0	0	4	4	8	P
6	HS XXXX	Humanities Elective II	3	1	0	0	6	10	
		Credits for Semester V						57	

Semester VI

	Course No.	Course Title	L	T	E	P	O	C	Cat
1		Unallocated Credits **						36	
		Credits for Semester VI						36	

** Semester VI is kept "Free" to enable the students to do internship.

Semester VII

	Course No.	Course Title	L	T	E	P	O	C	Cat
1	MA XXXX	Math Elective II	3	0	0	0	6	9	P
2	MA XXXX	Math Elective III/	3	0	0	0	6	9	P
3	MA XXXX	Math Elective IV / Project I	3	0	0	0	6	9	P
4		Humanities Elective III	3	1	0	0	6	10	
		Credits for Semester VI						37	

Math Electives I – III are to be chosen from the following basket:

- Functional Analysis
- Numerical Analysis
- Commutative Algebra
- Partial Differential Equations
- Algebraic Topology
- Advanced Probability Theory
- Graph Theory
- Entrepreneurship Elective

Semester VIII

	Course No.	Course Title	L	T	E	P	O	C	Cat
1	MA XXXX	Math Elective III/IV	3	0	0	0	6	9	P
2	MA XXXX	Math Elective IV/V	3	0	0	0	6	9	P
3	MA XXXX	Math Elective V/VI/Project II	3	0	0	0	6	9	P
4		Unallocated Credits						18	
		Credits for Semester VI						45	

Semester	I	II	III	IV	V	VI	VII	VIII	Total
Credits	55	50	60	60	57	36	37	45	400

Category	Computing	Professional (P) Core+ Elective	Humanities (H)	Sciences (S)	General (G)	Unallotted Credits	Total
Credits	12	175 + 63	30	46	20	54	400

For continuation to M.S. in Mathematics:

Semester IX:

	Course No.	Course Title	L	T	E	P	O	C	Cat
1	MA XXXX	Main Project Phase I	0	0	0	40	0	40	P
2		Unallocated Credits						20	
		Total Credits for Semester IX						60	

Semester X:

	Course No.	Course Title	L	T	E	P	O	C	Cat
1	MA XXXX	Main Project Phase II	0	0	0	60	0	60	P

Semester	I	II	III	IV	V	VI	VII	VIII	IX	X	Total
Credits	55	50	60	60	57	36	37	45	60	60	520

Category	Computing	Professional (P) Core+ Elective	Humanities (H)	Sciences (S)	General (G)	Unallotted Credits	Total
Credits	12	275 + 63	30	46	20	74	520