

DEPARTMENT OF MATHEMATICS & STATISTICS
 University College of Science, Maharana Bhupal Campus
 Mohanlal Sukhadia University, Udaipur

M.A. /M.Sc. MATHEMATICS (CBCS) 2016-17

Semester- I

Course no.	Course Code PSSCCXX	Title of the Course	L-T-P	No. of Credits	Max. Marks		Total
					University Exam.	Internal Assessment	
	1	2		3	4	5	6
I	M1 MAT 01-CT01	Core Course- 01 Algebra-I	4-1-0	5	80	20	100
II	M1 MAT 02-CT02	Core Course- 02 Real Analysis	4-1-0	5	80	20	100
III	M1 MAT 03-CT03	Core Course- 03 Differential Equations & Calculus of Variation	4-1-0	5	80	20	100
IV	M1 MAT 04-CT04	Core Course- 04 Mechanics-I	4-1-0	5	80	20	100
V	M1 MAT 05-CT05	Core Course- 05 Differential Geometry-I	3-1-0	4	80	20	100

Semester- II

Course no.	Course Code PSSCCXX	Title of the Course	L-T-P	No. of Credits	Max. Marks		Total
					University Exam.	Internal Assessment	
	1	2		3	4	5	6
I	M2 MAT 01-CT06	Core Course- 06 Algebra-II	4-1-0	5	80	20	100
II	M2 MAT 02-CT07	Core Course- 07 Complex Analysis	4-1-0	5	80	20	100
III	M2 MAT 03-CT08	Core Course- 08 Special Functions	3-1-0	4	80	20	100
IV	M2 MAT 04-CT09	Core Course- 09 Mechanics-II	4-1-0	5	80	20	100
V	M2 MAT 05-CT10	Core Course- 10 Differential Geometry-II	3-1-0	5	80	20	100
VI	M2 MAT 06-SC01	Skill Course- 01	2-0-0	2	80	20	100

Skill Course (SC) for Semester II

Note: Students can opt one SC courses with the permission of the Head of the Department.

Course no.	Course Code PSSSCCXX	Title of the Course	L-T-P	No. of Credits	Max. Marks		Total
					Univer- sity Exam.	Internal Asses sment	
	1	2		3	4	5	6
I	M2 MAT 06-SC 01	Skill Course Elective 01 Mathematical and Analytical Skill (For Biological Sciences)	2-0-0	2	80	20	100
II	M2 MAT 06-SC 02	Skill Course Elective - 02 Official Statistics-I	2-0-0	2	80	20	100

Semester- III

Course no.	Course Code PSSSCCXX	Title of the Course	L-T-P	No. of Credits	Max. Marks		Total
					Univer- sity Exam.	Internal Asses sment	
	1	2		3	4	5	6
I	M3 MAT 01-CT11	Core Course- 11 Topology	3-1-0	4	80	20	100
II	M3 MAT 02-CT12	Core Course- 12 Tenser Analysis	4-1-0	5	80	20	100
III	M3 MAT 0X-DSE 0X	DSE - 0 X	-	5	80	20	100
IV	M3 MAT 0X-DSE 0X	DSE - 0 X	-	5	80	20	100
V	M3 MAT 0X-DSE 0X	DSE - 0 X	-	5	80	20	100

Discipline Specific Elective Course (DSE) for Semester III

Note: Students are to opt any three DSE courses among the following with the permission of the Head of the Department.

Course no.	Course Code PSSSCCXX	Title of the Course	L-T-P	No. of Credits	Max. Marks		Total
					Univer- sity Exam.	Internal Asses sment	
	1	2		3	4	5	6
I	M3 MAT01-DSE 01	DSE- 01 Numerical Analysis-I	4-1-0	5	80	20	100
II	M3 MAT02-DSEP 02	DSE - 02 * Computer Programming in-C	2-0-3	5	80	20	100
III	M3 MAT03-DSE 03	DSE - 03 Discrete Mathematics-I	4-1-0	5	80	20	100
IV	M3 MAT04-DSE 04	DSE - 04 Optimization Techniques-I	4-1-0	5	80	20	100

V	M3 MAT05 –DSE 05	DSE - 05 Mathematical Theory of Statistics-I	4-1-0	5	80	20	100
VI	M3 MAT06–DSE 06	DSE - 06 Viscous Fluid Dynamics-I	4-1-0	5	80	20	100
VII	M3 MAT07–DSE 07	DSE - 07 Integral Equations	4-1-0	5	80	20	100
VIII	M3 MAT08–DSE 08	DSE - 08 Astronomy-I	4-1-0	5	80	20	100
IX	M3 MAT09–DSE 09	DSE - 09 Number Theory-I	4-1-0	5	80	20	100

- * (i) This paper cannot be opted by the students having computer science as an optional paper in their U.G. Course.
(ii) This paper can be opted by maximum of 25 students on the basis of merit of previous semesters.

Semester- IV

Course no.	Course Code PSSCCXX	Title of the Course	L-T-P	No. of Credits	Max. Marks		Total
					University Exam.	Internal Assessment	
	1	2		3	4	5	6
I	M4 MAT 01-CT 13	Core Course- 13 Functional Analysis	3-1-0	4	80	20	100
II	M4 MAT 02-CT 14	Core Course- 14 Relativity and Cosmology-II	4-1-0	5	80	20	100
III	M4 MAT 0 X –DSE 0X	DSE - 0 X		5	80	20	100
IV	M4 MAT 0 X –DSE 0X	DSE - 0 X		5	80	20	100
V	M4 MAT 0 X –DSE 0X	DSE - 0 X		5	80	20	100
VI	M4 MAT -SC 02	Skill Course- 02	2-0-0	2	80	20	100

Discipline Specific Elective Course (DSE) for Semester IV

Note: Students are to opt any three DSE courses among the following with the permission of the Head of the Department.

Course no.	Course Code PSSCCXX	Title of the Course	L-T-P	No. of Credits	Max. Marks		Total
					University Exam.	Internal Assessment	
	1	2		3	4	5	6
I	M4 MAT01 –DSE 01	DSE- 01 Numerical Analysis-II	4-1-0	5	80	20	100
II	M4 MAT02 –DSEP 02	DSE – 02 * Computer Programming of Numerical Methods	2-0-3	5	80	20	100

III	M4 MAT03 –DSE 03	DSE - 03 Discrete Mathematics-II	4-1-0	5	80	20	100
IV	M4 MAT04 –DSE 04	DSE - 04 Optimization Techniques-II	4-1-0	5	80	20	100
V	M4 MAT05 –DSE 05	DSE - 05 Mathematical Theory of Statistics-II	4-1-0	5	80	20	100
VI	M4 MAT06 –DSE 06	DSE - 06 Viscous Fluid Dynamics-II	4-1-0	5	80	20	100
VII	M4 MAT07 –DSE 07	DSE - 07 Integral Transforms	4-1-0	5	80	20	100
VIII	M4 MAT08 –DSE 08	DSE - 08 Astronomy-II	4-1-0	5	80	20	100
IX	M4 MAT09 –DSE 09	DSE - 09 Number Theory-II	4-1-0	5	80	20	100

* This paper can be opted by maximum of 25 students on the basis of merit of previous semesters.

Prerequisites to opt the DSE courses for semester IV are as follows:

For M4 MAT01 –DSE 01 is M3 MAT01–DSE 01
For M4 MAT02 –DSE 02 is M3 MAT02–DSE 02
For M4 MAT03 –DSE 03 is M3 MAT03–DSE 03
For M4 MAT04 –DSE 04 is M3 MAT04–DSE 04
For M4 MAT05 –DSE 05 is M3 MAT05–DSE 05
For M4 MAT06 –DSE 06 is M3 MAT06–DSE 06
For M4 MAT07 –DSE 07 is M3 MAT07–DSE 07
For M4 MAT08 –DSE 08 is M3 MAT08–DSE 08
For M4 MAT09 –DSE 09 is M3 MAT09–DSE 09

Skill Course (SC) for Semester IV

Note: Students can opt one SC courses with the permission of the Head of the Department.

Course no.	Course Code PSSCCXX	Title of the Course	L-T-P	No. of Credits	Max. Marks		Total
					University Exam.	Internal Assessment	
	1	2		3	4	5	6
I	M4 MAT -SC 01	Skill Course Elective 01 Basic Statistical Techniques	2-0-0	2	80	20	100
II	M4 MAT -SC 02	Skill Course Elective - 02 Official Statistics-II	2-0-0	2	80	20	100