



# DR. RAM MANOHAR LOHIA AVADH UNIVERSITY, AYODHYA

## Structure of Syllabus for the Program: M.A./M.Sc., Subject: MATHEMATICS

Structure of Syllabus Developed by			
Name of BoS Convener/ BoS Member	Designation	Department	College/ University
Prof. Shiv Kumar Tiwari	Professor & Convener	Mathematics	K.S. Saket P.G. College, Ayodhya
Prof. Arvind Mishra	Professor & Expert	Mathematics	B.H.U., Varanasi
Prof. Sanjay Kumar Pandey	Professor & Member	Mathematics	Shri L. B. S. Degree College, Gonda
Prof. Jayash Nath Mishra	Professor & Member	Mathematics	G. S. P.G. College, Sultanpur

Course Code		Course Title	Credits	T/P	Evaluation	
					CIE	ETE
A	B	C	D	E	F	G
<b>SEMESTER I (YEAR I)</b>						
B030701T	CORE	Advanced Abstract Algebra	5	T	25	75
B030702T	CORE	Advanced Real Analysis	5	T	25	75
B030703T	CORE	Topology	5	T	25	75
B030704T	FIRST ELECTIVE (Subject Elective) (Select any one)	Mathematical Modeling	5	T	25	75
B030705T		Riemannian Geometry	5	T	25	75
B030706T		Fuzzy Sets	5	T	25	75
B030707P	SECOND ELECTIVE (Subject Elective) (Select any one)	Programming in Python-I	5	P	50	50
B030708P		Computational Techniques using C	5	P	50	50
<b>SEMESTER II (YEAR I)</b>						
B030801T	CORE	Analytical Dynamics	5	T	25	75
B030802T	CORE	Theory of Differential Equation and Boundary Value Problems	5	T	25	75
B030803T	CORE	Measure and Integration	5	T	25	75
B030804T	THIRD ELECTIVE (Generic Elective) (Select any one)	History of Mathematics	5	T	25	75
B030805T		Indian Contribution in Mathematics	5	T	25	75
B030806T		Elementary Statistics	5	T	25	75
B030807P	FOURTH ELECTIVE (Subject Elective) (Select any one)	Programming in Python-II	5	P	50	50
B030808P		Computer Aided Numerical Analysis	5	P	50	50
<b>SEMESTER III (YEAR II)</b>						
B030901T	CORE	Functional Analysis	5	T	25	75

B030902T	CORE	Integral Equations	5	T	25	75
B030903T	CORE	Machine Learning	5	T	25	75
B030904T	FIFTH ELECTIVE (Subject Elective) (Select any one)	General Relativity	5	T	25	75
B030905T		Finsler Geometry	5	T	25	75
B030906T		Advanced Discrete Mathematics	5	T	25	75
B030907P	SIXTH ELECTIVE (Subject Elective) (Select any one)	Introduction to SCILAB /MATLAB	5	P	50	50
B030908P		Introduction to LaTeX	5	P	50	50
<b>SEMESTER IV (YEAR II)</b>						
B031001T	CORE	Advanced Operations Research	5	T	25	75
B031002T	CORE	Hydrodynamics	5	T	25	75
B031003T	SEVENTH ELECTIVE (Subject Elective) (Select any one)	Special Functions	5	T	25	75
B031004T		Differential Geometry of Manifolds	5	T	25	75
B031005T		Advanced Numerical Methods	5	T	25	75
B031006P	RESEARCH PROJECT / DISSERTATION	Research Project / Dissertation	10	P	50	50