

Proposed Course for M. Sc. In MATHEMATICS AND COMPUTING
CENTRE FOR INTERDISCIPLINARY MATHEMATICAL SCIENCES,
BANARAS HINDU UNIVERSITY, VARANASI

Distribution Of Different Courses And Credits In Various Semesters

Semester-I		
Course Code	Title	Credits
MSMC 101	Algebra	04
MSMC 102	Analysis-I	04
MSMC 103	Differential Equations	03
MSMC 104	Mathematical Statistics	03
MSMC 105	Computer Programming with C and MATLAB	03
MSMC 106	Lab	03
	Total	20
Semester-II		
MSMC 201	Analysis-II	04
MSMC 202	Optimization Techniques	04
MSMC 203	Data Structure	04
MSMC 204	Design and Analysis of Algorithm	03
MSMC 205	Lab	03
MSMC 206	SWAYAM Course	02
	Total	20
Semester-III		
MSMC 301	Numerical Methods	04
MSMC 302	Graph Theory and its Applications	04
MSMC 303	Theory of Computation	04
MSMC 304	Lab	03
MSMC 305	SWAYAM Course	02
MSMC 306- MSMC 313	Elective I (Any one course from MSMC 306-MSMC 313)	03
MSMC 306	Computational Aspects of Differential Geometry	
MSMC 307	Computational Fluid Dynamics	
MSMC 308	Computer Graphics	
MSMC 309	Financial Mathematics	
MSMC 310	Image Processing	
MSMC 311	Numerical Relativity	
MSMC 312	Artificial Intelligence	
MSMC 313	Stochastic Calculus For Finance	
	Total	20
Semester-IV		
MSMC 401	Mathematical Methods	04
MSMC 402	Fourier and Wavelet Analysis	04
MSMC 403	Mathematical Modelling and Simulation	04
MSMC 404	Dissertation	04

MSMC 405- MSMC 412	Elective II (Any one course from MSMC 405-MSMC 412)	04
MSMC 405	Computational Geometry	
MSMC 406	Mathematical Biology	
MSMC 407	Mathematical Cosmology	
MSMC 408	PDEs and their Numerical Solutions	
MSMC 409	Numerical Linear Algebra	
MSMC 410	Differential Manifold	
MSMC 411	Machine learning	
MSMC 412	Computational Functional Analysis	
MSMC 413	Fractional Calculus and Fractional Order Differential Equations	
	Total	20
	Grand Total	80