

**CH. CHARAN SINGH UNIVERSITY, MEERUT**  
**M.Sc. ( Mathematics) SYLLABI (2016 Onwards)**

<u>M.Sc. Semester I</u>	hrs/week	L:T:P	Max. marks
1. M – 101 AbstractAlgebra	6	6:0:0	100
2. M – 102 Real Analysis	6	6:0:0	100
3. M – 103 Differential Equations	6	6:0:0	100
4. M – 104 Metric Spaces	6	6:0:0	100
5. OE – 105 Open Elective	4	4:0:0	100
<u>M.Sc. Semester II</u>			
1. M – 201 Topology	6	6:0:0	100
2. M – 202 Measure and Integration	6	6:0:0	100
3. M – 203 Advanced Discrete Mathematics	6	6:0:0	100
4. M – 204 Operations Research	6	6:0:0	100
5. OE– 205 Open Elective	4	4 : 0:0	100
<u>M.Sc. Semester III</u>			
1. M – 301 Complex Analysis	6	6:0:0	100
2. M – 302 Mathematical Methods	6	6:0:0	100
3. M – 303 Core- Elective (Any one of the following)			
(I) Algebraic Coding Theory	6	6:0:0	100
(II) Numerical Analysis	6	6:0:0	100
(III) Lattice Theory	6	6:0:0	100
(IV) Object Oriented Programming in C <sup>++</sup>	6	4:0:2	100
4. M – 304 Core- Elective (Any one of the following)	6	6:0:0	100
(I) Mathematical Statistics			
(II) Partial Differential Equations	6	6:0:0	100
(III) Mechanics			
(IV) Mathematical Programming			
5. OE – 305 Open Elective	4	4 :0:0	100

### M.Sc. Semester IV

<b>1. M – 401</b>	Number Theory	6	6:0:0	100
<b>2. M – 402</b>	Fluid Dynamics	6	6:0:0	100
<b>3. M -403</b>	<b>Core- Elective (Any one of the following)</b>	<b>6</b>	<b>6:0:0</b>	<b>100</b>
	(I) Functional Analysis			
	(II) Information Theory			
	(III) Mathematical Cryptography			
	(IV) Algebraic Topology			
<b>4. M- Core- Elective (Any one of the following)</b>		<b>6</b>	<b>6:0:0</b>	<b>100</b>
	(I) Differential Geometry			
	(II) Plasma Dynamics			
	(III) File Structure And Database Management System			
	(IV) Fuzzy Sets and its Applications			
<b>5. OE– 405</b>	<b>Open Elective</b>	4	4:0:0	100

### **Syllabi of Courses/ Papers under CBCS Programme for Students of other Departments**

<b>Open Elective- MA01</b>	<b>Basic Cryptography</b>	4	4:0:0	100
<b>Open Elective- MA02</b>	<b>Optimization Techniques</b>	4	4:0:0	100