

**KERALA UNIVERSITY**  
**SYLLABUS FOR M.Sc. MATHEMATICS**  
**SEMESTER PATTERN IN AFFILIATED COLLEGES**  
**2013 ADMISSION ONWARDS**

**M.Sc. MATHEMATICS COURSE STRUCTURE & MARK DISTRIBUTION**

Semester	Paper Code	Title of the Paper	Distributi on hrs. per Semester	Instructional hrs./ week		Dur ESA hrs.	Maximum Marks		
				L	P		CA	ESA	Total
I	MM 211	Linear Algebra	108	6	-	3 hrs	25	75	100
	MM 212	Real Analysis - I	108	6	-	"	25	75	100
	MM 213	Diff. Equation	108	6	-	"	25	75	100
	MM 214	Topology - I	126	7	-	"	25	75	100
II	MM 221	Algebra	108	6	-	3 hrs	25	75	100
	MM 222	Real Analysis-II	108	6	-	"	25	75	100
	MM 223	Topology-II	108	6	-	"	25	75	100
	MM 224	Computer Programm- ing in C++	126	5	2	"	25	75	100
III	MM 231	Complex Analysis - I	126	7	-	3 hrs	25	75	100
	MM 232	Functional Analysis -I	108	6	-	"	25	75	100
	MM 233	Elective - I	108	6	-	"	25	75	100
	MM 234	Elective - II	108	6	-	"	25	75	100
IV	MM 241	Complex Analysis - II	126	7	-	3 hrs	25	75	100
	MM 242	Functional Analysis-II	108	6	-	"	25	75	100
	MM 243	Elective - III	108	6	-	"	25	75	100
	MM 244	Elective - IV	108	6	-	"	25	75	100
	MM 245	Dissertation / Project						80+20	100
		Comprehensive Viva							100
	<b>GRAND TOTAL</b>		<b>1800</b>					<b>1800</b>	

L: Lecture; P: Practical; CA: Continuous Assessment ; ESA: End Semester Examination

**M.Sc MATHEMATICS**  
*(Revised Syllabus from 2013 Admissions)*  
**LIST OF PAPERS**

**SEMESTER - I**

- MM211 Linear Algebra (Revised Syllabus Attached)  
 MM212 Real Analysis - I (Revised Syllabus Attached)  
 MM213 Differential Equations (Original Syllabus Continues)  
 MM214 Topology – I (Revised Syllabus Attached)

**SEMESTER – II**

- MM221 Algebra (Revised Syllabus Attached)  
 MM222 Real Analysis - II (Revised Syllabus Attached)  
 MM223 Topology – II (Revised Syllabus Attached)  
 MM224 Computer Programming in C++ (Original Syllabus Continues)

**SEMESTER – III**

- MM231 Complex Analysis – I (Original Syllabus Continues)  
 MM232 Functional Analysis – I (Original Syllabus Continues)  
 MM233 Elective (One among the following)  
     Automata Theory (Original Syllabus Continues)  
     Probability (Original Syllabus Continues)  
     Operations Research (Revised Syllabus Attached)  
 MM234 Elective (One among the following)  
     Geometry of numbers (Original Syllabus Continues)  
     Differential Geometry (Original Syllabus Continues)  
     Graph Theory (New Syllabus Attached)  
     Approximation Theory (New Syllabus Attached)

**SEMESTER – IV**

- MM241 Complex Analysis – II (Original Syllabus Continues)  
 MM242 Functional Analysis – II (Original Syllabus Continues)  
 MM243 Elective (One among the following)  
     Mathematical Statistics (Original Syllabus Continues)  
     Mechanics (Original Syllabus Continues)  
     Theory of Wavelets (Original Syllabus Continues)  
     Coding Theory (Original Syllabus Continues)  
     Field Theory (Revised Syllabus Attached)  
 MM244 Elective (One among the following)  
     Commutative Algebra (Original Syllabus Continues)  
     Representation Theory of Finite Groups (Original Syllabus Continues)  
     Category Theory (Original Syllabus Continues)  
     Advanced Graph Theory (Original Syllabus Continues)  
     Analytic Number Theory (Original Syllabus Continues)