MS PROGRAM IN MATHEMATICS

Students are admitted to the MS program at Jinnah University for Women after obtaining the BS/M.Sc degree in Mathematics and Physics, and scoring the specified minimum marks in the relevant GRE or equivalent NTS examination. For qualifying as MS, the students need to successfully complete 24 credit hours of courses (6 of compulsory and 18 of optional) and 6 credit hours of research. Wherever feasible, the courses are conducted in the format of lectures, workshop, case studies and extended assignments. Typically, the research work is pursued in the third and fourth semester. The course plan and course outlines for MS in Mathematics are as follows.

First Semester

Compulsory	Crdt. Hr
MAT 701 Research Methodology I	3
Optional	
Optional I	3
Optional II	3
Total Crdt. Hrs.	9

Second Semester

Compulsory	Crdt. Hr
MAT 702 Research Methodology II	3
Optional	
Optional III	3
Optional IV	3
Total Crdt. Hrs.	9

Third Semester

Optional	Crdt. Hr
Optional V	3
Optional VI	3
Total Crdt. Hrs.	6

Fourth Semester

Optional	Crdt. Hr
Research Work	6
Total Crdt. Hrs	6

The list of optional courses is enclosed and student can select any course with the permission of supervisor.

LIST OF MS COURSES IN MATHEMATICS

MAT5011/MAT 701	Research Methodology I
MAT5022/MAT 702	Research Methodology II
MAT 5031/ MAT 703	Mathematical Methods in Physical Sciences
MAT 5042/ MAT 704	Integral Equation
MAT 5051/ MAT 705	Classical Electrodynamics I
MAT 5062/MAT 706	Classical Electrodynamics II
MAT 5071/ MAT 707	Theory of Ordinary Differential Equation
MAT 5082/MAT 708	Mathematical Modeling and Simulation
MAT 5091/MAT709	Advanced Modeling and simulation
MAT5102 / MAT 710	Atomic and Molecular Structure
MAT 5111/ MAT 711	Axiomatic Quantum Mechanics
MAT 5122/ MAT 712	Application of Quantum Mechanics
MAT 5131/ MAT 713	Theory of Partial Differential Equation
MAT 5142/ MAT 714	Representation Theory of Groups
MAT 5151/ MAT 715	Representation Theory of Group II
MAT 5162/ MAT 716	Lie Algebra I
MAT 5171/ MAT 717	Lie Algebra II
MAT 5182/ MAT 718	Theory of Rings I
MAT 5191/ MAT 719	Theory of Rings II
MAT 5202/ MAT 720	Near Ring
MAT 5212/ MAT 721	Non Linear System I
MAT 5221/ MAT 722	Non Linear System II
MAT 5231/ MAT 723	Special Cases of Rings