Degree Plan for B.Ed. in Mathematics

Minimum No. of Credits for this Degree Plan = 135					
University Requirements = 24 Credits					
Course Code	**Course Name**	**Credit Hours**	**Contact Hours**		**Pre-requisites/ Co-requisites**
			Theory	Practical	
ARAB100	Arabic Language I	3	3	0	
ARAB101	Arabic Language II	3	3	0	ARAB100
HIST150	Islamic Civilization	3	3	0	
ENGL150	English Language	3	3	0	
ENGL152	English Language II	3	3	0	ENGL150
ENGL155	Communication Skills	3	3	0	ENGL152
COMP101/L	Computer Skills	3	2	2	COMP-A,COMP-B, Digital Literacy
MNGT100	Entrepreneurship: Creativity and Innovation	3	3	0	
University Electives = 3 Credits					
College Requirements = 20 Credits					
MATH116	Pre-Calculus	4	3	2	MATH001
MATH211	Calculus I	4	3	2	MATH116
STAT101	Introduction to Statistics	4	3	2	COMP101/L
COMP151/L	Introduction to Algorithms	4	3	2	COMP101/L
PHYS101/L	General Physics I	4	3	2	MATH116
College Electives = 3 Credits					
Mathematics Requirements = 46 Credits					
MATH212	Calculus II	3	2	2	MATH211
MATH215	Ordinary Differential Equations	3	2	2	MATH212
MATH221	Foundations of Mathematics	3	2	2	MATH116
MATH228	Mathematics for Teachers I	3	2	2	MATH116
MATH145	Linear Algebra I	3	2	2	MATH116
MATH256	Mathematics for Teachers II	3	2	2	MATH116
MATH259	Calculus III	3	2	2	MATH212
MATH310	Introduction to Group Theory	3	2	2	MATH221
MATH315	Partial Differential Equations	3	2	2	MATH215
MATH323	Foundation of Analysis	1	0	2	MATH221
MATH340	Introduction to Number Theory	3	2	2	MATH221
MATH360	Real Analysis I	3	2	2	MATH221

MATH365	Linear Algebra II	3	2	2	MATH145
MATH410	Complex Analysis I	3	2	2	MATH259
MATH421	Project in Mathematics	6	0	12	Complete 90 Credits

Education Requirements = 30 Credits					
EDUC103	Educational Psychology	3	3	0	
EDUC113	Foundations of Education	3	3	0	
EDUC200	Curriculum and Instruction	3	3	0	EDUC103
EDUC202	Technology of Education	3	3	0	COMP101
EDUC204	Systems of Education and Administration in the GCC	3	3	0	
EDUC301	Methods of Teaching	3	2	2	EDUC200
EDUC302	Guidance and School Counseling	3	3	0	EDUC103
EDUC400	Psychological Measurement and Educational Evaluation	3	2	2	
EDUC402	Practical Education	6	0	12	EDUC301

Mathematics Electives = 9 Credits					

- 9 credits of electives must be from the mathematics elective courses.

Mathematics Elective Courses					
Course Code	**Course Name**	**Credit Hours**	**Contact Hours**		**Pre-requisites/ Co-requisites**
			Theory	**Practical**	
MATH320	Computer Algebra System	2	1	2	COMP101
MATH350	Rings and Fields	3	3	0	MATH310
MATH354	Numerical Analysis	3	2	2	MATH212, MATH245
MATH355	Graph Theory	3	3	0	MATH221
MATH380	Advanced Calculus	3	3	0	MATH259
MATH401	Introduction to Topology	3	3	0	MATH221
MATH402	Linear Programming	3	3	0	MATH245
MATH405	Introduction to Optimization	3	3	0	MATH245
MATH411	Complex Analysis II	3	3	0	MATH410
MATH440	Measure Theory	3	3	0	MATH360
MATH450	Real Analysis II	3	3	0	MATH360
MATH455	Introduction to Functional Analysis	3	3	0	MATH365
MATH475	History of Mathematics	3	3	0	MATH212
MATH491	Topics in Mathematics I	3	3	0	Instructor's Approval

MATH492	Topics in Mathematics II	3	3	0	Instructor's Approval
MATH493	Topics in Mathematics III	3	3	0	Instructor's Approval
MATH494	Topics in Mathematics IV	3	3	0	Instructor's Approval