

## Degree Plan for B.Sc. in Mathematics

<b>Minimum No. of Credits for this Degree Plan = 135</b>					
<b>University Requirements = 24 Credits</b>					
<b>Course Code</b>	<b>Course Name</b>	<b>Credit Hours</b>	<b>Contact Hours</b>		<b>Pre-requisites/ Co-requisites</b>
			<b>Theory</b>	<b>Practical</b>	
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	
<b>University Electives = 3 Credits</b>					
<b>College Requirements = 28 Credits</b>					
MATH116	Pre-Calculus	4	3	2	MATH001
MATH211	Calculus I	4	3	2	MATH116
STAT101	Introduction to Statistics	4	3	2	
COMP151	Introduction to Algorithms	4	3	2	COMP101/L
CHEM101/L	General Chemistry I	4	3	2	
PHYS101/L	General Physics I	4	3	2	MATH116
PHYS150/L	General Physics II	4	3	2	PHYS101/L
<b>College Electives = 6 Credits</b>					

<b>Mathematics Requirements = 39 Credits</b>					
MATH212	Calculus II	3	2	2	MATH211
MATH215	Ordinary Differential Equations	3	2	2	MATH212
MATH221	Foundations of Mathematics	3	2	2	MATH116
MATH145	Linear Algebra I	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
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
<b>Department Electives = 35 Credits</b>					
<ul style="list-style-type: none"> <li>• At least 12 credits of electives must be from the mathematics elective courses.</li> <li>• Courses from the Department of Mathematical and Physical Sciences may be taken as electives with written approval of the HOS/HOD.  <div style="margin-left: 40px;">Students may opt to take any of the 18-credit approved university minors.</div> </li> </ul>					

<b>Mathematics Elective Courses</b>					
<b>Course Code</b>	<b>Course Name</b>	<b>Credit Hours</b>	<b>Contact Hours</b>		<b>Pre-requisites/</b>
			<b>Theory</b>	<b>Practical</b>	<b>Co-requisites</b>
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

**Mathematics Service Courses**

MATH222	Discrete Mathematics	3	2	2	MATH116
MATH228	Mathematics for Teachers I	3	2	2	MATH116
MATH256	Mathematics for Teachers II	3	2	2	MATH116
MATH312	Differential Equations and App. for Engineers	3	2	2	MATH212
MATH325	Linear Algebra and Multivariate Calculus for Engineers	3	2	2	MATH212
LOGI100	Introduction to Logic	3	2	2	

