



**New Study plan of the Bachelor of science in Mathematics program**  
**(Total Program Credit Hours = 132 & Total Program Contact hours = 146)**

First Year							
First level				Second level			
Code	Course Name	Hr	Requisite	Code	Course Name	Hr	Requisite
0212ISCL-2	Mediocrity and Moderation	2	----	0291vol-2	Volunteering Skill	2	----
0221ARAB-2	Arabic Skills	2	----	1300PHYS-3	<a href="#">General Physics</a>	3	1101PHYS-1
0522ENGL-5	English Language	5	----	1101PHYS-1	<a href="#">General Physics Lab</a>	1	1300PHYS-3
1300CHEM-3	<a href="#">General Chemistry 1</a>	3	----	1300BIO-3	<a href="#">General Biology Science</a>	3	1101BIO-1
1110CHEM-1	<a href="#">General Chemistry 1 Lab</a>	1	----	1101BIO-1	<a href="#">General Biology Science Lab</a>	1	1300BIO-3
1400MATH-4	<a href="#">Pre-Calculus</a>	4	----	1411MATH-4	<a href="#">Calculus1</a>	4	1400MATH-4
<b>Total</b>		<b>17</b>		<b>Total</b>		<b>18</b>	

Second Year							
Third level				Forth level			
Code	Course Name	Hr	Requisite	Code	Course Name	Hr	Requisite
2412MATH-4	Calculus 2	4	1411MATH-4	----	Free Course 1	2	----
2371MATH-3	Analytic Geometry	3	----	2413MATH-4	Calculus 3	4	202MATH-3-S
2343MATH-3	Number Theory	3	1411MATH-4	2344MATH-3	Linear Algebra 2	3	211MATH-3-S
2342MATH-3	Linear Algebra 1	3	1400MATH-4	2251MATH-2	Mathematical Software	2	232MATH-3-S
2431STAT-4	Introduction to Statistics	4	----	2321MATH-3	Real Analysis 1	3	CS102-3-S
2461MATH-4	Differential Equations 1	4					
<b>Total</b>		<b>17</b>		<b>Total</b>		<b>16</b>	

### Third Year

Fifth level			
Code	Course Name	Hr	Requisite
	Elective course 1	2	
3452MATH-3	Numerical Analysis 1	4	2321MATH-3
3362MATH-3	Differential Equations2	3	2461MATH-4
3445MATH-4	Abstract Algebra 1	4	1411MATH-4
3322MATH-3	Real Analysis 2	3	2321MATH-3
<b>Total</b>		<b>16</b>	

Sixth level			
Code	Course Name	Hr	Requisite
	Free Course 2	2	
0401COMM -4	Training-1 Job Preparation Skills	4	
3472MATH-4	Introduction to Graph Theory and Combinatorics	4	2342MATH-3
3346MATH-3	Abstract Algebra2	3	3445MATH-4
3332MATH-3	Elements of Probability Theory	3	3322MATH-3
3423MATH-3	Introduction to Complex Analysis	4	2321MATH-3
<b>Total</b>		<b>20</b>	

### Forth Year

Seventh level			
Code	Course Name	Hr	Requisite
4373MATH-3	Introduction to Topology	3	2321MATH-3
4391MATH-3	Research Project	3	2321MATH-3 3362MATH-3 3445MATH-4 3452MATH-4
4353MATH-3	Linear Programming	3	2344MATH-3
	Program elective course 1	3	
	Program elective course 2	3	
	Program elective course 3	3	
<b>Total</b>		<b>18</b>	

Eighth level			
Code	Course Name	Hr	Requisite
4899MATH-3	Collaborative training	8	
<b>Total</b>		<b>8</b>	

### Elective course

Code	Course Name	Hr	Requisite
4324MATH-3	Application of Mathematics in Economics	3	3332 MATH-3
4325MATH-3	Multivariable Analysis	3	3332 MATH-3
4326MATH-3	Special Topics in Analysis and Geometry	3	2431STAT-3
4333STAT-3	Mathematical Statistics	3	3445MATH-4
4334STAT-3	Applied Statistics	3	3445MATH-4
4335STAT-3	Special Topics in Statistics and Probability	3	3445MATH-4
4336STAT-3	Statistical Methods for Machine Learning	3	3452MATH-4
4347MATH-3	Introduction to Mathematical Cryptography	3	3362MATH-3
4348MATH-3	Introduction to Coding Theory	3	3362MATH-3
4349MATH-3	Special Topics in Algebra and Number Theory	3	--
4358 MATH-3	Numerical Analysis 2	3	3362MATH-3
4354MATH-3	Mathematical Finance	3	3362MATH-3
4355MATH-3	Mathematical Modeling	3	2342MATH-3 + 2461 MATH-4 +2321MATH-3 + 2344 MATH-3
4352MATH-3	R Programming	3	2342MATH-3 + 2461 MATH-4 +2321MATH-3 + 2344 MATH-3
4356MATH-3	Special Topics in Applied Mathematics	3	2321MATH-3
4357MATH-3	Differential Equations 3	3	3332MATH-3
4393MATH-3	Teaching Mathematics	3	3332MATH-3
4392MATH-3	Field Training	3	2431STAT-4
4314MATH-3	Differential Geometry	3	3445MATH-3