

**Faculty of Science**

**Department of Mathematics**

**Study Plan Guide for the Bachelor  
Degree in Mathematics**

**For the academic year  
2019/2020**

## Study Plan Guide for the Bachelor Degree in Mathematics

First year				
First semester				
Course No.	Course Title	Hrs	Prerequisites	Co-requisites
11031101	Calculus (1)	3	-	
11031141	Statistics and probability	3	-	
01101111	Arabic language	3	01100011	
01101112	English language	3	01100012	
06051211	Programming Fundamentals	3	01100051	
-	University optional requirement	3		
<b>Total</b>		<b>18</b>		
Second semester				
Course No.	Course Title	Hrs	Prerequisites	Co-requisites
12011181	General biology	3	-	
11031221	Linear algebra (1)	3	11031101	
11031211	Foundations of mathematics	3	-	
11031202	Calculus (2)	3	11031101	
01101102	National education	3	-	
-	University optional requirement	3		
<b>Total</b>		<b>18</b>		

Second year				
First semester				
Course No.	Course Title	Hrs	Prerequisites	Co-requisites
11032131	Euclidean and non-Euclidean geometry	3	-	
11032103	Calculus (3)	3	11031202	
11011101	General Chemistry (1)	3	-	
11032164	Ordinary differential equations	3	11031202	
11021101	General physics (1)	3	-	
-	University optional requirement	3		
<b>Total</b>		<b>18</b>		
Second semester				
Course No.	Course Title	Hrs	Prerequisites	Co-requisites
11032222	Linear algebra (2)	3	11031221	
11032242	Probability theory	3	11032103 11031141	
11032261	Numerical analysis (1)	3	06051211 11031101	
11032251	Real analysis (1)	3	11031211 11031202	
-	Department optional requirement	3		
<b>Total</b>		<b>18</b>		

Third year				
First semester				
Course No.	Course Title	Hrs	Prerequisites	Co-requisites
11033104	Advanced Calculus	3	11032103	
11033162	Numerical analysis (2)	3	11032261	
	University optional requirement	3		
11033166	Linear programming and applications	3	11032222	
11033152	Complex analysis	3	11032251 11032103	
-	Department optional requirement	3		
Total		18		
Second semester				
Course No.	Course Title	Hrs	Prerequisites	Co-requisites
11033253	Real analysis (2)	3	11032251	
11033265	Partial differential equations	3	11032164	
11033232	General Topology (1)	3	11031211	
11033243	Mathematical statistics	3	11032242	
-	Department optional requirement	3		
Total		15		

Fourth year				
First semester				
Course No.	Course Title	Hrs	Prerequisites	Co-requisites
11034163	Mathematical modeling	3	06051211	
11034167	Applied mathematics	3	11033265	
11034123	Abstract algebra (1)	3	11032212	
11034144	Applied statistics	3	11033243	
-	Department optional requirement	3		
<b>Total</b>		<b>15</b>		
Second semester				
Course No.	Course Title	Hrs	Prerequisites	Co-requisites
08014162	Mathematics curricula & teaching methods	3	4 <sup>th</sup> level	
11034224	Abstract algebra (2)	3	11034123	
01101101	Military sciences	3	-	
-	Free course	3		
	Optional department requirement	3		
<b>Total</b>		<b>15</b>		