

**Master of Science Specialized in Mathematics**

<b>Program Requirements</b>		
<b>Requirements</b>	<b>Credit Hours</b>	<b>Contact Hours</b>
<b>Department Requirements (Courses)</b>	<b>30</b>	<b>30</b>
<b>Thesis</b>	<b>6</b>	<b>6</b>
<b>Total</b>	<b>36</b>	<b>36</b>

Level 1									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	Math 601	Abstract Algebra 1	3	0	0	3	0	0	323Math
2	Math 602	Real Analysis 1	3	0	0	3	0	0	315 Math
Total			6	.	0	6	0	0	
			6			6			

Level 2									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	Math 603	Complex Analysis 1	3	0	0	3	0	0	314Math
2	Math 604	Numerical Analysis	3	0	0	3	0	0	419Math
Total			6	0	0	6	0	0	
			6			6			

Level 3									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	Math 605	Theory of Differential Equations	3	0	0	3	0	0	332 Math
2	Math 606	Mathematical Statistics 1	3	0	0	3	0	0	Math352&Math453
Total			6	0	0	6	0	0	
			6			6			

Level 4									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1		Elective Course	3	0	0	3	0	0	=====
2		Elective Course	3	0	0	3	0	0	=====
Total			6	0	0	6	0	0	
			6			6			

Level 5									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1		Elective Course	3	0	0	3	0	0	=====
2		Elective Course	3	0	0	3	0	0	=====
Total			6	0	0	6	0	0	

	6	6
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Level 6									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	Math 699	M.Sc. Thesis	6	0	0	6	0	0	=====
Total			6	0	0	6	0	0	
			6			6			

**List of courses: Compulsory courses are written, then elective courses, then the research project or thesis.**

General compulsory courses for all tracks									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	Math 601	Abstract Algebra 1	3	0	0	3	0	0	323Math
2	Math 602	Real Analysis 1	3	0	0	3	0	0	315 Math
3	Math 603	Complex Analysis 1	3	0	0	3	0	0	314Math
4	Math 604	Numerical Analysis	3	0	0	3	0	0	419Math
5	Math 605	Theory of Differential Equations	3	0	0	3	0	0	332 Math
6	Math 606	Mathematical Statistics 1	3	0	0	3	0	0	Math352&Math453

<b>Elective Courses in Pure Mathematics Track</b>									
<b>1</b>	<b>Math 620</b>	<b>Abstract Algebra 2</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>Math 601</b>
<b>2</b>	<b>Math 622</b>	<b>Topics in Algebra</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>Math 601</b>
<b>3</b>	<b>Math 630</b>	<b>Real Analysis 2</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>Math 602</b>
<b>4</b>	<b>Math 631</b>	<b>Topology</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>Math 602</b>
<b>5</b>	<b>Math 632</b>	<b>Functional Analysis</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>Math 602</b>
<b>6</b>	<b>Math 633</b>	<b>Topics in Real Analysis</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>Math 602</b>

Elective Courses in Applied Mathematics Track									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	Math 640	Numerical Methods for Ordinary DE's	3	0	0	3	0	0	Math 604
2	Math 642	Approximation Theory	3	0	0	3	0	0	Math 604
3	Math 643	Optimization	3	0	0	3	0	0	Math 604
4	Math 650	Integral Differential Equations	3	0	0	3	0	0	Math 605
5	Math 651	Mathematical Modeling	3	0	0	3	0	0	Math 605
6	Math 696	Elective Topics	3	0	0	3	0	0	Math 604
Elective Courses in Statistics Track									
1	Math 607	Probability Theory(1)	3	0	0	3	0	0	Math 606
2	Math 660	Mathematical Statistics (2)	3	0	0	3	0	0	Math 606
3	Math 661	Regression and Experimental Design	3	0	0	3	0	0	Math 606
4	Math 662	Times Series Analysis	3	0	0	3	0	0	Math 606
5	Math 663	Topics in Mathematical Statistics	3	0	0	3	0	0	Math 606
6	Math 672	Stochastic Processes	3	0	0	3	0	0	Math 606
M.Sc. Thesis									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	Math 699	M.Sc. Thesis	6	0	0	6	0	0	=====