



1. List of Courses:

I. Core Courses:

1. MAT 611: Measure & Integration
2. MAT 621: Advanced Linear Algebra
3. MAT 641: Numerical Analysis
4. MAT 613: Introduction to Functional Analysis
5. MAT 623: Algebra (1)
6. MAT 631: Partial Differential Equations
7. MAT 671: Topology

II. Elective Courses:

List A

1. MAT 615: Applied Functional Analysis
2. MAT 642: Numerical Methods for Differential Equations
3. MAT 645: Numerical Optimization
4. MAT 653: Combinatorial Optimization
5. MAT 661: Coding Theory & Cryptography
6. MAT 663: Mathematical and Computational Modeling
7. MAT 681: Selected Topics in Applied Mathematics (1)
8. MAT 683: Selected Topics in Applied Mathematics (2)

List B

1. MAT 624: Algebra (2)
2. MAT 626: Number Theory
3. MAT 628: Representation Theory
4. MAT 633: Ordinary Differential Equations
5. MAT 651: Combinatorics and Graph Theory
6. MAT 675: Differential Geometry
7. MAT 685: Selected Topics in Pure Mathematics (1)
8. MAT 687: Selected Topics in Pure Mathematics (2)

III. Research Course:

1. MAT 699: Research Project.



2. Program's Semester Wise Plan:

LEVEL1	Course Code & Number	Course Name	Credit Hours	Lec.	Lab.	Tut.	Prerequisites
	MAT 611	Measure and Integration	4	3	0	1	
	MAT 621	Advanced Linear Algebra	4	3	0	1	
	MAT 641	Numerical Analysis	4	3	0	1	
			12	13			

LEVEL2	Course Code & Number	Course Name	Credit Hours	Lec.	Lab.	Tut.	Prerequisites
	MAT 613	Functional Analysis	4	3	0	1	
	MAT 623	Algebra (1)	4	3	0	1	
	MAT 631	Partial Differential Equations	4	3	0	1	
			12	12			

LEVEL3	Course Code & Number	Course Name	Credit Hours	Lec.	Lab.	Tut.	Prerequisites
	MAT 671	Topology	4	3	0	1	
	MAT xxx	Elective Course (1)	4	x	x	x	
	MAT xxx	Elective Course (2)	4	x	x	x	
			12	x			

LEVEL4	Course Code & Number	Course Name	Credit Hours	Lec.	Lab.	Tut.	Prerequisites
	MAT xxx	Elective Course (3)	4	x	x	x	
	MAT xxx	Research Project	4	x	x	x	
			8	x			