6.1 The Study Program - Table no. 1
Academic Year of Evaluation* - (2009)

Framework of study: *Extended – Pure Mathematics*

Year in Program	Semester		Course Title	Course Type	No. of Credits	Prerequisites for Admission	Weekly Teaching Hours	Weekly Exercise Hours
1	1	112	Linear Algebra 1	Required	3	-	4	2
	2	113	Linear Algebra 2	Required	3	112	4	2
	1	132	Infinitesimal Calculus 1	Required	3.5	-	5	2
	2	133	Infinitesimal Calculus 2	Required	3.5	132	5	2
	2	151	Computers in Mathematics	Required	1.5	-	3	-
	1	195	Discrete Mathematics	Required	2.5	-	3	2
2	1	202	Set Theory	Required	1.5		2	1
	1	211	Abstract Algebra 1	Required	2.5	113	3	2
	2	212	Abstract Algebra 2	Required	2.5	-	3	2
	2	222	Topology	Required	2.5	113,133,202	3	2
	1	230	Infinitesimal Calculus 3	Required	3.5	113,133	5	2
	2	231	Complex Variables 1	Required	2.5	230	3	2
	2	235	Fourier Analysis	Required	1.5	230	3	-
	2	240	Ordinary Differential Equations	Required	2.5	230	3	2
	1	265	Introduction to Probability and Statistics	Required	2.5	132	3	2
3	1	241	Partial Differential equations	Required	3	240	4	2
	1	341	Modern Analysis	Required	2.5	230	3	2
	2	373	Mathematical Probability and Statistics	Required	3	-	4	2
	1	303	Mathematical Logic	Elective	1.5	202	3	-
	1	311	Abstract Algebra 3	Elective	1.5	212	2	1
	1	376	Numerical Methods 1	Elective	2	241	2	2
	1	520	Algebraic Topology 1	Elective	1.5	211	3	-
	2	524	Projective Geometry	Elective	2	113	3	1
	1	525	Algebraic Geometry	Elective	1.5	211.212	3	-
	1	526	Differential Geometry1	Elective	2	230	3	1
	2	537	Euclidean Geometry	Elective	1.5	112	3	-
	1	554	Introduction to Combinatorics	Elective	1.5	113/7,133,195	3	-
	1	555	Graph Theory	Elective	1.5	113/7,133,195	3	-
	1	576	Introduction to Number Theory	Elective	1.5	-	3	-
	2	599	Breakthroughs in Mathematics	Elective	1.5	-	3	-

Framework of study: ***Extended - Applied Mathematics***

Year in Program	Semester		Course Title	Course Type	No. of Credits	Prerequisites for Admission	Weekly Teaching Hours	Weekly Exercise Hours
1	1	112	Linear Algebra 1	Required	3	-	4	2
	2	113	Linear Algebra 2	Required	3	112	4	2
	1	132	Infinitesimal Calculus 1	Required	3.5	-	5	2
	2	133	Infinitesimal Calculus 2	Required	3.5	132	5	2
	2	151	Computers in Mathematics	Required	1.5	-	3	-
	1	170	Introduction to Computing	Required	2	-	2	2
	2	174	Introduction to Object Oriented Programming	Required	2	170	2	2
	1	195	Discrete Mathematics	Required	2.5	-	3	2
2	1	230	Infinitesimal Calculus 3	Required	3.5	113,133	5	2
	2	231	Complex Variables 1	Required	2.5	230	3	2
	2	235	Fourier Analysis	Required	1.5	230	3	-
	2	240	Ordinary Differential Equations	Required	2.5	230	3	2
	1	265	Introduction to Probability and Statistics	Required	2.5	132	3	2
	1	280	Algorithms and Data Structures	Required	2.5	174	3	2
2-3	1	211	Abstract Algebra 1	Required	2.5	113	3	2
	1	376	Numerical Methods 1	Required-discrete track	2	240	2	2
3	1	311	Abstract Algebra 3	Required-discrete track	1.5	212	2	1
	2	374	Applied Algebra	Required-discrete track	1.5	211	3	-
	1-2	385	Applied Mathematics Project Workshop	Required-continuous track	4	-	4	4
	1	241	Partial Differential Equations	Required	3	240	4	2
	2	320	Physics for Mathematicians	Required-continuous track	2.5	132	3	2
	2	630	Image Processing	Required	1.5	280	2	1
	2	212	Abstract Algebra 2	Required-discrete track	2.5	211	3	2
	1	275	Theory of Statistics 1	Elective	3	162	4	2
	1	315	1ansforms	Required-continuous track	1.5	132	3	-
	1	369	Operations Research	Elective	1.5	112/117	2	1
	2	375	Random Structures	Elective	1	-	2	-
	1	500	Theoretical Hydrodynamics	Elective	2	-	4	-
	2	537	Euclidean Geometry	Elective	1.5	-	3	-
	2	541	Optimal Control and Dynamic Systems	Elective	1	-	2	-
	1	554	Introduction to Combinatorics	Elective	1.5	113/7,133,195	3	-
	1	555	Graph Theory	Elective	1.5	113/7,133,195	3	-
	2	572	Markov Processes	Elective	1.5	-	2	1

Framework of study: *Extended - Mathematics and Statistics*

Year in Program	Semester		Course Title	Course Type (oblig./elective/ seminar/other)	No. of Credits	Prerequisites for Admission	Weekly Teaching Hours	Weekly Exercise Hours
1	1	112	Linear Algebra 1	Required	3	-	4	2
	2	113	Linear Algebra 2	Required	3	112	4	2
	1	132	Infinitesimal Calculus 1	Required	3.5	-	5	2
	2	133	Infinitesimal Calculus 2	Required	3.5	132	5	2
	2	151	Computers in Mathematics	Required	1.5	-	3	-
	1	161	Introduction to Probability and Statistics 1	Required	2.5	132,195	3	2
	2	162	Introduction to Probability and Statistics 2	Required	2.5	161	3	2
	1	195	Discrete Mathematics	Required	2.5	-	3	2
2	1	202	Set Theory	Required- pure track	1.5	-	2	1
	2	222	Topology	Required- pure track	2.5	113,133,202	3	2
	1	230	Infinitesimal Calculus 3	Required	3.5	113,133	5	2
	2	231	Complex Variables 1	Required	2.5	230	3	2
	2	235	Fourier Analysis	Required	1.5	230	3	-
	2	240	Ordinary Differential Equations	Required	2.5	230	3	2
	2	260	Regression and Analysis of Variance	Required	3	117,275	4	2
	1	266	Queueing Theory	Required	1.5	161	2	1
	2	268	Statistical Packages	Required	1.5	162	3	-
	1	275	Theory of Statistics 1	Required	3	162	4	2
		277	Theory Of Statistics 2	Required	1.5	275	2	1
3	1	211	Abstract Algebra 1	Required	2.5	113	3	2
	2	212	Abstract Algebra 2	Required- pure track	2.5	211	3	2
	2	234	Differential Equations	Required- pure track	1.5	133	3	-
	1	241	Partial Differential equations	Required- applied track	3	240	4	2
	1	315	Integral Transforms	Required- applied track	1.5	230	3	-
	1	360	Statistics Applications 1	Required	2	275	2	2
	2	361	Statistics Applications 2	Required	2	360	2	2
	1	367	Simulation	Required	1.5	275	2	1
	1	369	Operations Research	Required	1.5	112/117	2	1
	2	373	Mathematical Probability and Statistics	Required	3	-	4	2
	1	376	Numerical Methods 1	Required	2	240	2	2
	2	572	Markov Processes	Required	1.5		2	1

Framework of study: ***Major - Pure Mathematics***

Year in Program	Semester		Course Title	Course Type (oblig./elective/ seminar/other)	No. of Credits	Prerequisites for Admission	Weekly Teaching Hours	Weekly Exercise Hours
1	1	112	Linear Algebra 1	Required	3	-	4	2
	2	113	Linear Algebra 2	Required	3	112	4	2
	1	132	Infinitesimal Calculus 1	Required	3.5	-	5	2
	2	133	Infinitesimal Calculus 2	Required	3.5	132	5	2
	2	151	Computers in Mathematics	Required	1.5	-	3	-
	1	195	Discrete Mathematics	Required	2.5	-	3	2
2	1	202	Set Theory	Required	1.5	-	2	1
	1	211	Abstract Algebra 1	Required	2.5	113	3	2
	2	212	Abstract Algebra 2	Required	2.5	211	3	2
	1	230	Infinitesimal Calculus 3	Required	3.5	113,133	5	2
	2	231	Complex Variables 1	Required	2.5	230	3	2
2-3	2	234	Differential Equations	Required	1.5	133	3	-
	1	265	Introduction to Probability and Statistics	Required	2.5	132	3	2
3	1	341	Modern Analysis 1	Required	2.5	133	3	2

Framework of study: ***Major - Applied Mathematics***

Year in Program	Semester		Course Title	Course Type (oblig./elective/ seminar/other)	No. of Credits	Prerequisites for Admission	Weekly Teaching Hours	Weekly Exercise Hours
1	1	112	Linear Algebra 1	Required	3	-	4	2
	2	113	Linear Algebra 2	Required	3	112	4	2
	1	132	Infinitesimal Calculus 1	Required	3.5	-	5	2
	2	133	Infinitesimal Calculus 2	Required	3.5	132	5	2
	2	151	Computers in Mathematics	Required	1.5	-	3	-
	1	195	Discrete Mathematics	Required	2.5	-	3	2
2	1	230	Infinitesimal Calculus 3	Required	3.5	113,133	5	2
	2	231	Complex Variables 1	Required	2.5	230	3	2
	2	235	Fourier Analysis	Required	1.5	230	3	-
	2	240	Ordinary Differential Equations	Required	2.5	230	3	2
	1	265	Introduction to Probability and Statistics	Required	2.5	132	3	2
2-3	1	211	Abstract Algebra 1	Required	2.5	113	3	2
	1	376	Numerical Methods 1	Required	2	240	2	2
3	1	241	Partial Differential Equations	Required	3	240	4	2
	1	315	Integral Transforms	Required	1.5	230	3	-

Framework of study: *Major - Mathematics for Teachers*

Year in Program	Semester		Course Title	Course Type (oblig./elective/ seminar/other)	No. of Credits	Prerequisites for Admission	Weekly Teaching Hours	Weekly Exercise Hours
1	1	112	Linear Algebra 1	Required	3	-	4	2
	2	113	Linear Algebra 2	Required	3	112	4	2
	1	132	Infinitesimal Calculus 1	Required	3.5	-	5	2
	2	133	Infinitesimal Calculus 2	Required	3.5	132	5	2
	2	151	Computers in Mathematics	Required	1.5	-	3	-
	1	195	Discrete Mathematics	Required	2.5	-	3	2
2	1	202	Set Theory	Required	1.5	-	2	1
	1	211	Abstract Algebra 1	Required	2.5	113	3	2
	2	212	Abstract Algebra 2	Required	2.5	-	3	2
	2	222	Topology	Required	2.5	113,133,202	3	2
	1	230	Infinitesimal Calculus 3	Required	3.5	113,133	5	2
	2	231	Complex Variables 1	Required	2.5	230	3	2
	2	537	Euclidean Geometry	Elective	1.5	-	3	-
2-3	2	234	Differential Equations	Required	1.5	133	3	-
	1	265	Introduction to Probability and Statistics	Required	2.5	132	3	2
3	2	599	Breakthroughs in Mathematics	Elective	1.5	-	3	-
	1	601	High School Mathematics from an Advanced Viewpoint 1	Elective	1.5	132	3	-
	2	602	High School Mathematics from an Advanced Viewpoint 2	Elective	1.5	132	3	-

Framework of study: *Major - Statistics*

Year in Program	Semester		Course Title	Course Type (oblig./elective/ seminar/other)	No. of Credits	Prerequisites for Admission	Weekly Teaching Hours	Weekly Exercise Hours
1	2	117	Linear Algebra with Applications	Required	3	-	4	2
	1	136	Infinitesimal Calculus 1	Required	3	195	4	2
	2	137	Infinitesimal Calculus 2	Required	3	136	4	2
	2	151	Computers in Mathematics	Required	1.5	-	3	-
	1	161	Introduction to Probability and Statistics 1	Required	2.5	132,195	3	2
	2	162	Introduction to Probability and Statistics 2	Required	2.5	161	3	2
	1	195	Discrete Mathematics	Required	2.5	-	3	2
2	2	232	Introduction to Complex Functions	Required	1.5	133	3	-
	2	260	Regression and Analysis of Variance	Required	3	275	4	2
	1	266	Queueing Theory	Required	1.5	161	2	1
	2	268	Statistical Packages	Required	1.5	162	3	-
	1	275	Theory of Statistics 1	Required	3	162	4	2
	2	277	Theory of Statistics 2	Required	1.5	275	2	1
3	1	360	Statistics Applications 1	Required	2	275	2	2
	2	361	Statistics Applications 2	Required	2	361	2	2
	1	367	Simulation	Required	1.5	275	2	1
	1	369	Operations Research	Required	1.5	112/117	2	1
	2	373	Mathematical Probability and Statistics	Required	3	-	4	2
	1	376	Numerical Methods 1	Required	2	240	2	2
	2	572	Markov Processes	Required	1.5	275	2	1

Framework of study: ***Minor - Mathematics***

Year in Program	Semester		Course Title	Course Type (oblig./elective/ seminar/other)	No. of Credits	Prerequisites for Admission	Weekly Teaching Hours	Weekly Exercise Hours
1	2	117	Linear Algebra with Applications	Required	3	-	4	2
	1	136	Infinitesimal Calculus 1	Required	3	195	4	2
	2	137	Infinitesimal Calculus 2	Required	3	136	4	2
	2	151	Computers in Mathematics	Required	1.5	-	3	-
	1	195	Discrete Mathematics	Required	2.5	-	3	2
2-3	2	216	Algebraic Structures II	Required	1.5	116	2	1
	2	232	Introduction to Complex Functions	Required	1.5	133	3	-
	2	234	Differential Equations	Required	1.5	133	3	-
	1	265	Introduction to Probability and Statistics	Required	2.5	132	3	2

Framework of study: *Minor - Statistics*

Year in Program	Semester		Course Title	Course Type (oblig./elective/	No. of Credits	Prerequisites for Admission	Weekly Teaching Hours	Weekly Exercise Hours
1	2		Linear Algebra with Applications		3	-	4	2
	1	136	Infinitesimal Calculus 1		3	195	4	2
	2	137	Infinitesimal Calculus 2		3	136	4	2
	1	161	Introduction to Probability and Statistics 1	Required	2.5	132,195	3	2
	2	162	Introduction to Probability and Statistics 2	Required	2.5	161	3	2
2	2	260	Regression and Analysis of Variance	Required	3	117	4	2
	1	275	Theory of Statistics 1	Required	3	162	4	2
	2	277	Theory of Statistics 2	Required	1.5	275	2	1