



CURRICULUM OUTLINE
DOCTOR OF PHILOSOPHY IN MATHEMATICS

Straight Ph.D. Math Program

CORE COURSES	24 UNITS	Unit	PRE-REQUISITE	SEMESTER, ACADEMIC YEAR	RATING
Math 611: Real Analysis I	3				
Math 621: Abstract Algebra I	3				
Math 623: Linear Algebra I	3				
Math 616: Complex Analysis I	3				
Math 612: Real Analysis II	3				
Math 622: Abstract Algebra II	3				
Math 661: Topology	3				
Math 655: Projective Geometry/ Math 652: Algebraic Geometry/ Math 653: Differential Geometry/ Math 650: Modern Geometry	3				
ELECTIVES	24 UNITS				
Math 613: Numerical Analysis I	3				
Math 614: Numerical Analysis II	3				
Math 615: Approximation Theory	3				
Math 617: Complex Analysis II	3				
Math 618: Measure Theory	3				
Math 619: Asymptotic Analysis	3				
Math 624: Linear Algebra II	3				
Math 625: Matrix Theory	3				
Math 626: Linear and Non-Linear Programming	3				
Math 627: Theory of Groups	3				
Math 628: Theory of Rings	3				
Math 629: Galois Theory	3				
Math 630: Statistical Methods	3				
Math 631: Mathematical Statistics I	3				
Math 632: Mathematical Statistics II	3				
Math 633: Stochastic Processes	3				
Math 634: Probability Theory	3				
Math 635: Multivariate Analysis	3				
Math 636: Regression Analysis	3				
Math 637: Mathematical Modelling	3				
Math 642: Numerical Linear Algebra	3				
Math 643: Numerical Optimization	3				
Math 644: Mathematical Finance	3				





Math 650: Modern Geometry	3			
Math 652: Algebraic Geometry	3			
Math 653: Differential Geometry	3			
Math 655: Projective Geometry	3			
Math 656: Geometric	3			
Crystallography	3			
Math 657: Theory Ordinary	3			
Differential Equations				
Math 658: Theory Partial Differential	3			
Equations	3			
Math 659: Ergodic Theory and				
Dynamical Systems				
Math 663: Algebraic Topology				
Math 670: Combinatorial	3			
Mathematics 1	3			
Math 671: Combinatorial	3			
Mathematics 2	3			
Math 672: Graph Theory Math	3			
673: Number Theory Math 674:	3			
Algebraic Number Theory	3			
Math 675: Coding Theory				
Math 676: Cryptography				
Math 681: Functional Analysis I Math	3			
682: Functional Analysis II	3			
Math 691: Seminar in Algebra	3			
Math 692: Seminar in Analysis	3			
Math 693: Seminar in Applied	3			
Mathematics Math				
694: Seminar in Graph Theory	3			
Math 695: Seminar in Combinatorial	3			
Mathematics				
Math 696: Seminar in Topology Math	3			
697: Seminar in Probability Theory	3			
and Mathematical Statistics				
Math 698: Seminar on Selected Topics	3			
Math 699: Independent Study	3			
COMPREHENSIVE EXAMINATION upon completion of all Date of Examination academic requirements				
MATH 700: PHD DISSERTATION				
DD1: PhD Dissertation 1	6			
DD2: PhD Dissertation 2	6			
SUMMARY:				
Core Courses - 24 units				
Math Electives - 24 units				
Dissertation - 12 units				
TOTAL 60 units				

