

# DEPARTMENT OF MATHEMATICS

## PROSPECTUS FORM

NAME OF STUDENT: \_\_\_\_\_

(PLEASE PRINT)

ADVISOR: \_\_\_\_\_

BRIEFLY DESCRIBE THE PLANS FOR THE DISSERTATION:

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*Student Signature*

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*Date*

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*Advisor Signature*

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*Date*

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*Approved*

\_\_\_\_\_  
*Associate Head for the Graduate Program*

\_\_\_\_\_  
*Date*

# Field of Thesis Groupings

New doctoral recipients are grouped by field of thesis using the *Mathematical Reviews*, 2010 Mathematics Subject Classifications. The listing below shows which MR codes make up each field of thesis group.

## Algebra/Number Theory

- 06 Order, lattices, ordered algebraic structures
- 08 General algebraic systems
- 11 Number theory
- 12 Field theory and polynomials
- 13 Commutative rings and algebras
- 14 Algebraic geometry
- 15 Linear and multilinear algebra; matrix theory
- 16 Associative rings and algebras
- 17 Nonassociative rings and algebras
- 18 Category theory, homological algebra
- 19  $K$ -theory
- 20 Group theory and generalizations

## Real, Complex, Functional, Harmonic Analysis (and Topological Groups)

- 22 Topological groups, Lie groups
- 26 Real functions
- 28 Measure and integration
- 30 Functions of a complex variable
- 31 Potential theory
- 32 Several complex variables and analytic spaces
- 33 Special functions
- 40 Sequences, series, summability
- 42 Fourier analysis
- 43 Abstract harmonic analysis
- 44 Integral transforms, operational calculus
- 46 Functional analysis
- 47 Operator theory

## Geometry/Topology

- 51 Geometry
- 52 Convex sets and discrete geometry
- 53 Differential geometry
- 54 General topology
- 55 Algebraic topology
- 57 Manifolds and cell complexes
- 58 Global analysis, analysis on manifolds

## Discrete Math/Combinatorics/Logic/Computer Science

- 03 Mathematical logic and foundations
- 05 Combinatorics
- 68 Computer science

## Probability

- 60 Probability theory and stochastic processes

## Statistics

- 62 Statistics (including biostatistics)

## Applied Mathematics

- 70 Mechanics of particles and systems
- 74 Mechanics of deformable solids
- 76 Fluid mechanics
- 78 Optics, electromagnetic theory
- 80 Classical thermodynamics, heat transfer
- 81 Quantum theory
- 82 Statistical mechanics, structure of matter
- 83 Relativity and gravitational theory
- 85 Astronomy and astrophysics
- 86 Geophysics
- 90 Operations research, mathematical programming
- 91 Game theory, economics, social, and behavioral sciences
- 92 Biology and other natural sciences, behavioral sciences
- 94 Information and communications, circuits

## Numerical Analysis/Approximations

- 41 Approximations and expansions
- 65 Numerical analysis

## Linear, Non-linear Optimization/Control

- 49 Calculus of variations and optimal control; optimization
- 93 Systems theory; control

## Differential, Integral, Difference Equations

- 34 Ordinary differential equations
- 35 Partial differential equations
- 36 Differential equations, operational calculus
- 37 Dynamical systems and ergodic theory
- 39 Finite differences and functional equations
- 45 Integral equations

## Mathematics Education

- 97 Mathematical Education

## Other/Unknown

- 00 General
- 01 History and biography
- 99 Missing/unknown