

Ascending to the Profession

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The Department of Mathematics, Statistics, and Computer Science at UIC

- 1 Offers undergraduate degrees in Pure Mathematics, Mathematical Computer Science, Statistics and Operations Research, and Mathematics Teaching
- 2 Belongs to the American Mathematical Society's Group I Research Institution - 40 leading mathematics departments in the country
- 3 Has over 60 faculty and post-doctoral fellows
- 4 Faculty have received multiple recognitions:
 - ▶ 10 UIC University Scholar Awards
 - ▶ 14 Sloan Foundation Postdoctoral Fellow Awards
 - ▶ 7 NSF Career Awards
 - ▶ 5 UIC Award for Excellence in Teaching Awards
 - ▶ 6 UIC Silver Circle Awards (Cal Kafka 5 time winner!)
 - ▶ 2 UIC Distinguished Professor Awards
 - ▶ 2 LAS Distinguished Professor Awards
 - ▶ 3 AMS Centennial Fellowship Awards

The Math Experience at UIC

Math is Gateway to Sciences; What is Gateway to Math?

- Common Core Curriculum – *Calculus I, II, III*, for all Majors
- Core Topics – *Differential Equations, Linear Algebra, Group Theory, Analysis, Number Theory, Logic, Geometry, Statistics, Practice & Theory of Computer Science*
- Faculty & Students - *Advanced Topics Courses & Research Projects*
- Students Helping Students – *Math Tutoring & Math Club*
- ASCEND Helping Students – *Emerging Scholars Program*

Why Choose MSCS Major/Minor?

- Diverse employment opportunities
- Acquisition of quantitative, analytical, and problem-solving skills
- Extensive usefulness of mathematics in an era of multidisciplinary approaches to problem solving – actuarial sciences, atmospheric sciences, biomedicine, biostatistics, cryptography (NSA), data mining, financial math, infectious diseases, physics, international diplomacy!
- Gateway to advanced degrees: Careers in Teaching – High School (MST degrees), Community Colleges & 4-Year Colleges (MS & Doctoral degrees), Research Universities (PhD degrees)
- Gateway to advanced degrees: Careers in Industry & Government; also Business & Law (BS, MS & PhD degrees)
- Excellent choice for Undecided students who enjoy MSCS courses

ASCEND Math in Fall and Spring

Help at the beginning:

- Emerging Scholars Program

- ▶ Offers intensive workshops in a cooperative learning environment
- ▶ Workshops available for Pre-calculus, Calculus I,II,III, Differential Equations, and some advanced math courses
- ▶ Open to all UIC students and carries one hour of credit.
Priority given to ASCEND Scholars

- Mathematical Sciences Learning Center

- ▶ Walk-in Tutoring in Math (Monday–Friday 8 AM to 6 PM)
- ▶ Comfortable setting with TA and peer tutoring
- ▶ All levels of mathematics tutoring available for gateway courses
- ▶ Laptops are available for use in the MSLC (on wireless network)

The Math Experience at UIC



Math Learning Center in 430 SEO

Research Experiences for Undergraduates

Special Projects & Research Opportunities with MSCS Faculty

- More than 60 projects in MSCS Department during last 10 years
- More than 20 MSCS faculty participated
- Topics range from Cryptography, Statistical Modeling, Medical Statistics, Number Theory, Analysis, Dynamical Systems & Fractals, Differential Geometry, Knot Theory, Logic, Math Education, and various other topics in Applied Mathematics
- Generally pursued after completion of core courses - after second or third year of studies
- *Almost all students* who participate end up going on to graduate studies in Math, Statistics or Computer Science

Research Experiences for Undergraduates

Our undergraduate majors also participate in national Summer REU programs. Recent examples from summer 2008 & 2009 include:

- Research Experiences for Undergraduates in Medical Informatics at DePaul University
- Women and Mathematics at Princeton University
- Study Analysis and Geometry at Princeton University
- Arithmetic of L-functions at Park City Math Institute, Utah
- SMALL Undergraduate Research Project at Williams College, Massachusetts
- Analysis of Particle Detectors at Paul Scherrer Institute, Switzerland, part of CERN Project

Excellent motivation for graduate study, and career choices.

Undergraduate Math Club

The Math Club has been a part of the Department for more than 10 years.

Activities include:

- Meets each Wednesday at 4 PM in 300 SEO
- Refreshments are always served!
- Presentations by fellow students (grad & undergrad)
- Presentations/Lectures by Faculty (pizza is served)
- Putnam Competition Problems Practice Sessions (during Fall)
- ISMAA Competition Problems Practice Sessions (during Spring)
- Facebook page, "UIC Math Club" under Student Groups

Planning by students (for 2009-10): Natalie Krzyzanowski (President), Monika Aggarwa (Vice-President), Edgar Colin (Secretary), Anna Putyra (Treasurer)

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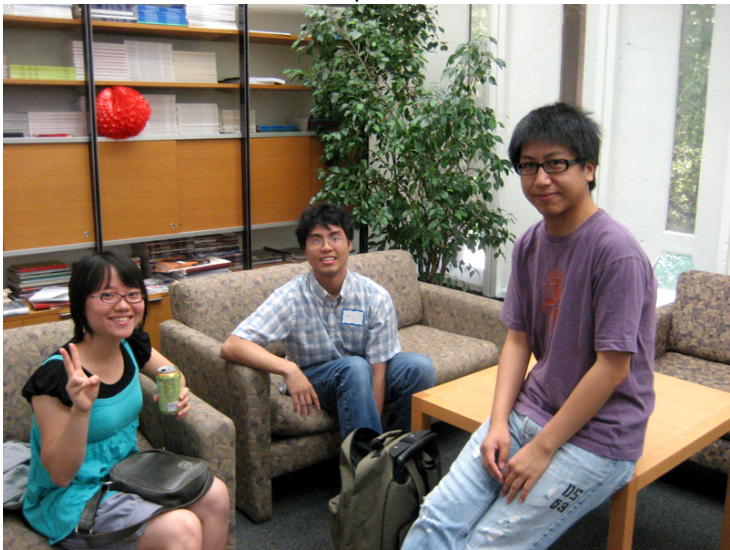
Math Club Members Never Miss Tea

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Math Club presentation by Professor Kashcheyeva

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Off to Graduate School at University of Wisconsin, Madison