# <u>IIIIP</u>

# College of Natural Sciences and Mathematics Mathematics Department

# Mathematics Education Options

The IUP Mathematics Department offers undergraduate and graduate programs in mathematics education. It also offers an education concentration program in elementary and middle school mathematics education. Because education programs are offered within the Mathematics Department, students benefit from the collaborative efforts of faculty members across disciplines.

# **Curriculum Overview**

All undergraduate majors in the department share a core of seven courses. These provide students with the background for advanced courses, depending on the major and the student's interest. This also allows for students to move easily from the mathematics education program to mathematics programs within the first two years.

In the mathematics education program, our students have ample opportunity for practice teaching. Four classes in the curriculum are devoted to pedagogy with practice teaching. This is in addition to the semester of student teaching that all education students complete.

The purpose of our M.Ed. degree programs is to provide an opportunity for teachers to increase their knowledge of mathematics and to become aware of research and innovations in mathematics education. The courses in the program emphasize both mathematics content and pedagogy.

# **Education Degree/Program Options**

B.S.Ed. Mathematics Education, M.Ed. Mathematics, M.Ed. Elementary and Middle School Mathematics Education, Mathematics Concentration for Elementary Education majors

# Faculty

Faculty members in the Mathematics Department have won awards for teaching, advising, scholarship, and service. They have received grants from the National Science Foundation, the National Institutes of Health, and the Eisenhower Professional Development Program. All courses are taught by faculty members, and class sizes for major courses rarely exceed twenty-five students.

Our mathematics education faculty members are active locally, providing in-service programs for teachers in many area school districts and serving in leadership roles in the Pennsylvania Council of Teachers of Mathematics and the Mathematics Council of Western Pennsylvania. They are also frequent presenters at national meetings of the National Council of Teachers of Mathematics.

# Facilities

The Mathematics Department is housed in Stright Hall, named for former mathematics professor I. Leonard Stright. Most of our classrooms are multimedia equipped, and we have our own computer classroom. We share a computer lab for our majors with the Computer Science Department, and we have two curriculum laboratories for education majors.

There is also a student-faculty lounge area, which is very popular with our students. The department is also home to the Center for Statistics Education in Pennsylvania and the Software Development Center.

# Indiana University of Pennsylvania

# College of Natural Sciences and Mathematics

Mathematics Department

# Mathematics Education Options

#### **Career** Opportunities

Our B.S.Ed. Mathematics Education graduates are in demand. In the past five years, every one of our graduates who was not limited to a narrow geographic area obtained a teaching job.

Here is a partial list of school districts where our recent graduates are teaching: Armstrong (Pa.), Central Bucks (Pa.), Butler Area (Pa.), Connellsville Area (Pa.), Erie City (Pa.), Harrisonburg City (Va.), Indiana Area (Pa.), King George County (Md.), Manheim Township (Pa.), Moshannon Valley (Pa.), Pittsburgh (Pa.), West Allegheny (Pa.), and York County (Pa.).

While their first careers are in teaching, some of our B.S.Ed. graduates have gone on to other careers, e.g.:

- Management Consultant—Supply Chain Process Improvement, Inc.
- Actuary—Vesta Insurance Group
- Computer Programmer—Self-employed
- Professor of Geospatial Information Sciences— University of Texas, Dallas
- Industrial Engineer—The Lane Company (furniture makers)

Elementary Education majors with a concentration in mathematics have a distinction when applying for teaching jobs. Many school districts seek those who have strong mathematics backgrounds. In addition to earning their permanent certification, many of our M.Ed. graduates go on to take leadership roles in education. Among our graduates are school principals and a district curriculum coordinator.

# For Additional Information

IUP Mathematics Department Stright Hall, Room 233 210 South Tenth Street Indiana, PA 15705-1048 724-357-2608 www.iup.edu/math

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IUP Information: www.iup.edu Admissions Office: www.iup.edu/admissions Financial Aid: www.iup.edu/bursar/tuitionfees

# Special Scholarships

The Mathematics Department awards the following annual scholarships to outstanding majors in the department: Ida Z. Arms Kappa Mu Epsilon Excellence Grant (mathematics honorary society), James A. Boytim Scholarship (mathematics), Roy A. Daugherty Scholarship (mathematics education), Dr. Willard W. Henneman, Jr. Scholarship (elementary mathematics education), Tony Kuczinski Scholarship (mathematics education), Arthur G. Morrell Scholarship (mathematics), Mildred M. Reigh Memorial Scholarship (mathematics education), and Rebecca A. Stoudt Memorial Scholarship (mathematics).

# Testimonials

"The class sizes are small, and the professors care about each student and are passionate about education. My professors all knew me by name. They know that they are affecting future generations by sending out qualified teachers into schools, so they set the standards high. The professors were approachable and always willing to help. They put in extra time with me whenever I asked and provided me with great opportunities to further myself professionally. My supervisor often comments that I handle myself like a veteran teacher. I know this is because of what I learned through my experiences at IUP." —Jacqueline Martin, B.S.Ed. Mathematics Education, 2005

"I am extremely happy with my decision to pursue a mathematics concentration from IUP. The concentration is a great attribute to have on a résumé because it differentiates me from other teaching applicants. It helped me land my first teaching job as a middle school math teacher. So many of the concepts and strategies I was taught in the concentration courses, I use every day with my students. The math concentration program is a huge asset to my education from IUP."

-Katie Palya, B.S.Ed. Elementary Education, 2005

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