

IRVING RECEIVES DISTINGUISHED TEACHING AWARD



Professor Ronald Irving of the Mathematics Department has received the annual Distinguished Teaching Award, the University's highest award for teaching. The basis for the award was Irving's outstanding work in our courses that prepare secondary teachers of mathematics. Irving,

an algebraist, began to work in these courses for teachers about five years ago. In them he has striven to lead his students to a solid conceptual understanding of the material and has, at the same time, emphasized the importance of being able to communicate clearly the ideas of mathematics, both orally and in writing. To achieve his goals, he has had his students work together in groups in which they gain experience in mathematical communication, in part by their own efforts and in part by examining critically the work of their fellow students. There is a solid mathematical content to the courses; Irving has insisted on the importance of the mathematics as well as on the pedagogical issues that are important to future teachers. The course has been very well received and highly successful. A text based on Irving's course will be published in the near future by the publishing house Springer-Verlag. This is the second time in recent years that a member of the Mathematics Department has received this prestigious award; Professor David Collingwood received it in 1998.

MATHDAY

The twelfth annual Mathday will be held on the campus of the University of Washington on March 25, 2002. On that day 1200 high school students from around the state will attend lectures and panel discussions, participate in hands-on activities, and go on field trips to labs on the campus. This year the plenary speaker will be Chris Diorio from the Department of Computer Science and Engineering. Guest lecturers will be drawn from many departments around the campus including the departments of Mathematics, Applied Mathematics, Computer Science, Genetics, Geography, and Atmospheric Sciences. There will be field trips to Fisheries, the School of Music, the Computer Center, Aeronautics, and the HIT lab. There will also be hands-on mathematical activities involving puzzles and paper geometric models. Undergraduate students, graduate students, staff, and faculty contribute to the success of this exciting, educational day in which students learn about the uses of mathematics in academic research and in industrial research and development.

This year Mathday is supported in part by a generous donation from George Kaufmann, president of Riegel Capital Management.

FUTURE TEACHERS COMBINE COURSEWORK WITH PRACTICE IN A SEATTLE SCHOOL

In 1993 the College of Arts and Sciences chose math professor Neal Koblitz as a "Liberal Arts Professor" for one year, a designation that was accompanied by a modest course-development grant. He was prompted to ask himself the question: "If I could dream up a course outside of our current offerings that I would most want my department to be teaching, what would it be?" The result was Math 354/355.

This two-quarter sequence, which is taken by approximately 20 math majors who intend to teach in middle or high school, is now in its eighth year. It has several features which mark a radical departure from anything the Math Department had offered before. First, the 5-credit course includes a required "lab" consisting of a day each week teaching math enrichment topics to several classes of sixth or seventh graders at an inner-city school (either Washington or Meany Middle School). The topics presented to the children range from games that painlessly drill arithmetic skills to sophisticated, but simply presented, concepts in the theory of algorithms and cryptography.

Math 354/355 is multidisciplinary. Besides studying the enrichment topics in enough depth to be able to teach them well, the UW students also explore controversial issues in education. Guest speakers, assigned reading, videos, and class discussions have covered a variety of controversies: gender equity in the classroom, labeling of children and ability grouping, ethnic and racial stereotyping, accountability and assessment, the role of computers, and the traditionalist-*vs*-reformist "MathWars." Every week or two the UW students are required to turn in a short paper discussing some aspect of the class readings or the school visits. The essays are corrected and graded strictly, and the students are expected to hand in a revised version of each paper.

The culmination of the school visits is a day-long field trip to UW arranged by the Math Department and the Minority Science

and Engineering Program (MSEP).

This past Spring, 120 children from Meany came to campus, where their program included an hour in the Planetarium, a hands-on presentation by physics professor Oscar



Vilches, a tour of Husky Stadium, and a visit to MSEP's computer lab. The photo shows a UW student helping a seventh grader get started on a "scavenger hunt" (web search) that the MSEP students had designed for the middle schoolers.