

## **ALWAYS UP FOR A CHALLENGE**

Math Professor Teresa Magnus is driven by discoveries in mathematics and in nature

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**“When students are open to using their unique talents to try new things, they make exciting discoveries.”** — Dr. Teresa Magnus, Professor of Mathematics



(PHOTO BY JODIE ANDRUSKEVICH)

### **Students Encouraged to Use Technology and Talents**

Teaching mathematics today has evolved, thanks to computer technology. What students used to accomplish with time-consuming work using a ruler and compass, explains Magnus, can now be accomplished on-screen with computer programs such as Geometers Sketch Pad. “They can change a vertex, distorting a figure to see which properties stay the same.” The ease with which they can manipulate shapes and patterns invites exploration.

It should come as no surprise that one of her favorite classes to teach is Puzzles, Patterns and Probabilities (Math 126), where she has students engaged in logic problems the first week. “When students are open to using their unique talents to try new things, they make exciting discoveries,” she says.

The challenge is to encourage students to think independently and take risks. Many “come to class having learned math only through observing examples,” notes Magnus. Her approach is not to tell them how to solve a problem, but to invite them to explore solutions on their own.

The biggest reward comes when students leave one of her classes with a more positive attitude about math. “I love it when they say, ‘I didn’t think I liked math until I took this course,’” says Magnus.

### **MAT Students Meet with Success**

As she guides and prepares the next generation of math teachers, Magnus says she sees many career changers — people who worked in engineering or business—decide to enter the classroom. The Master of Arts in Teaching Math program, which integrates mathematical study and educational theory, requires 75 hours of classroom observation.

“Right from the beginning, we encourage them to go beyond classroom observation and to present mini-lessons and assist students,” says Magnus. The approach pays off, since many graduate students in the program are hired before they even complete the two-year program.

Magnus seems to approach her academic profession and her outdoor pursuits with equal passion. As she works to prepare the next generation of mathematicians, she also encourages more people to become involved in orienteering. Along with her family—her husband John and their son Paul—she has

organized orienteering meets at Mines Fall Park, Beaver Brook, and Tucker Brook Town Forest. Last fall, the family worked with the Milford Conservation Commission to set up a permanent orienteering course at Tucker Brook.

When she's out on a course, the fun is "deciding which strategy will get me to the next control flag the quickest and without getting lost," she explains. In addition to navigating flat terrain while orienteering, Magnus has hiked several of New Hampshire's 4,000-plus foot mountains as well as back-packed into the Grand Canyon and reached the highest peak in Norway. Clearly, this math professor is always up for a challenge. ■

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\* **LUCIE BRYAR** earned a B.A. in English Communications from Rivier College in 1976. She has more than 20 years experience in news-writing, marketing, and public relations, including 14 years as a staff writer for Rivier College. In her current position as a writer for Southern New Hampshire Medical Center, Bryar produces the employee newsletter. She also writes for the hospital magazine, as well as contributes to the production of collateral marketing material.