

Math students accepted to elite program in Moscow

By Josh Robinson

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It's not often that a college student gets the chance to study with some of the greatest minds in the world. It's even rarer when two students from the same university receive the same opportunity. But that is what happened to UNC Asheville's Austin Mack and Natalie Rich.

Mack, an 18-year-old junior and Rich, a 23-year-old senior, were accepted to the Independent University of Moscow's "Math in Moscow" program.

"This is a highly respected program and one of only a few that specialize in mathematics. Some of the best mathematics students in the world go through this program. It's an exciting spot for them to be in. And it's good to see UNC



Natalie Rich

Asheville on that list of students (from top American schools)," said David Peifer, math department chair and professor.

Peifer is the main reason Mack and Rich applied to the program.

"I found out about 'Math in Moscow' from a poster on a bulletin board in the math department when I first came to UNCA in 2007. The program looked great, but I didn't seriously consider participating in the program until a year later when my advisor Dave Peifer suggested that I apply," Rich said.

"I had known about this program for about three years, seeing as it is one of the best offered anywhere, but it was suggested a lot by my advisor Dr. Peifer," Mack said.

Out of the 21 students enrolled in the "Math in Moscow" program, Mack and Rich are the only two from the same school, but it was purely coincidence.

"I didn't even know that someone else was applying to this program," he said.

But in fact Rich had also applied and been accepted.

"Above all else, we were chosen because the Russian mathematicians thought we could do the work," Rich said.

A student has to really like math to get this far, Rich and Mack said.

"I really enjoy studying the theoretical

aspects of math, the 'why' things work the way they do. It is nice when working on proving something to finally come to the end and know that you have just proved something that you once did not understand," Mack said.

Rich said she agreed. "The thing I love about math so much is the challenge. I love testing the limits of my mind and seeing how well I can understand the material and do the work as it becomes increasingly complex and abstract," she said.

Mack said he feels math comes a bit easier to him than most students, but doesn't necessarily think that's a good thing.

"Sometimes this can lead to doing less work, knowing I will get it easier, while others are striving to understand the material," he said.

On the other hand, Rich doesn't share Mack's notion of an innate talent for mathematics.

"It wasn't any special talent that got me to the Independent University of Moscow, it was a refusal to give up in the face of challenging mathematics. The ability to work through the initial confusion and to overcome my frustrations has been instrumental to my success. I don't have any secrets, only patience and perseverance," she said.

Mack and Rich plan to hone specific math skills while studying in Russia. Mack hasn't decided which path of mathematics he wants to specifically pursue just yet.

"There are many different areas of mathematics, so while studying in this graduate program I hope to discover what area of mathematics I really enjoy the most and wish to pursue most intensely, both in graduate school and research," he said.

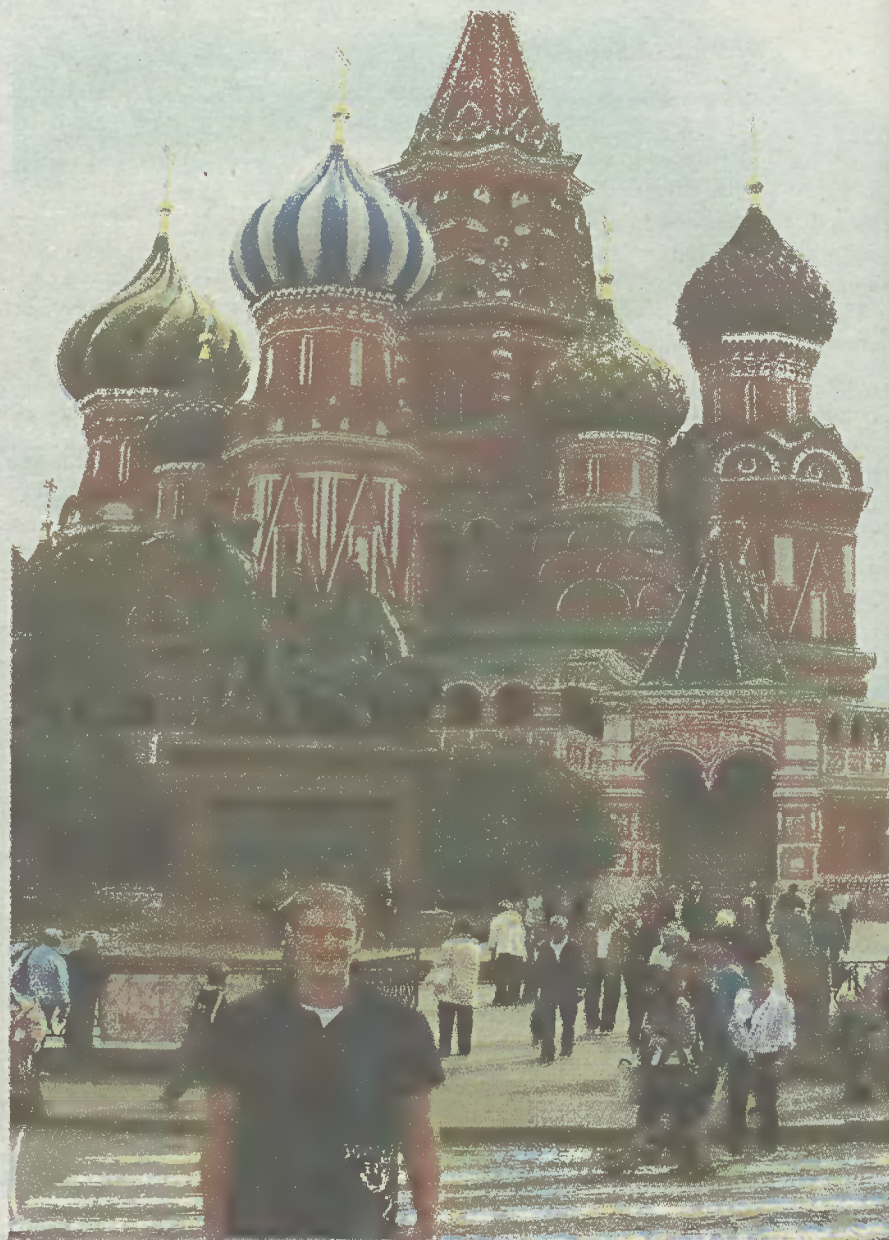
Rich has already narrowed in on what skill she wishes to enhance and eventually perfect, she said.

"At the IUM, I want to improve my proof-writing skills. In general, I want to become a better mathematical writer," she said.

Studying isn't all Mack and Rich will be doing throughout their stay in Russia. They plan to travel and sightsee. Places like St. Petersburg, Budapest, Finland, Belarus and the Ukraine are all possibilities, they said.

Mack and Rich had to begin learning basic Russian before departing for their trip.

"I will be able to learn so much more by



Austin Mack, 18, stands outside St. Basil's Cathedral in Moscow. Photo courtesy of Austin Mack

living in an environment where only Russian is spoken and not my natural language of English," Mack said.

"I only know a few words and phrases so far, but what I know has proved invaluable nevertheless," Rich added.

Rich is looking forward to experiencing the Russian winter and the ice skating that inevitably comes with it. She is a former gymnast who has a love for Russian gymnastics, and she plans to see a few competitions while she's there.

When Rich returns from her semester in Russia, she'll have one semester left at UNCA.

Mack won't be coming home just yet. He has plans to stay in Moscow to study

for another semester before returning.

"Once I return, I hope to enroll in a summer REU, where I hope to do research at another university in the U.S. Then when returning to UNC Asheville, I hope to finish off with more research with our faculty and finalize graduate school plans," he said.

Rich has somewhat similar plans. "Once I graduate, I plan to take a year off. I am currently looking into more international travel, possibly joining the Peace Corps. After that, I'll enroll in a Ph.D. program in pure mathematics. I hope to eventually become a professional mathematician; generally that means becoming a professor," she said.