Chair’s Corner

This past year has been a very busy one for our department. Union’s very first discipline-specific honors students, Emilie Huffman and Kimberly Lukens, both in mathematics, graduated this spring. Another of our spring mathematics graduates, Luke Allison, did part of his student teaching in Cameroon. Those students form a part of our largest graduating class of math majors in recent memory—we had ten students in senior seminar this year.

While seniors have been busy lining up jobs or making plans for graduate school, other students have been busy applying for summer programs and internships. We have curriculum news as well; the addition of a second semester of abstract algebra and of analysis was approved, and we have adopted a text that will help with the integration of faith and learning.

As always, we welcome hearing your stories, too. Let us know what’s going on!

May God bless you,
Bryan Dawson
Chair and Professor, Department of Mathematics

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Discipline-Specific Honors in Mathematics

As part of Union’s recent redesign of its honors program, departments have been encouraged to develop their own discipline-specific honors programs for juniors and seniors. The first group of programs approved included mathematics, and our department had the privilege of having the first two students in such a program. Those two students, Emily Huffman and Kimberly Lukens, became Union’s first discipline-specific honors graduates when they received their degrees in May. As further testimony of the quality of these students, both received a perfect score on the Major Field Test in Mathematics, a standardized exam taken by mathematics majors across the country.

Honors in mathematics is designed to offer our brightest students an opportunity to develop a deeper understanding of mathematical processes and research than is typically gained by undergraduate mathematics majors. The program consists of four honors-level courses taken during the junior and senior years, to include an honors project.

KME Conference in Springfield, Missouri

The Tennessee Gamma Chapter was represented by faculty members Drs. Bryan Dawson, Matt Lunford, and Michelle Nielsen and student members Ms. Kimberly Lukens and Ms. Emily Huffman. Students from KME chapters in Missouri, Kansas, and Tennessee presented scholarly talks at the convention. Emily Huffman presented her mathematics honors research paper entitled “On the Theory of Numbers – A Paper by Evariste Galois” and Kimberly Lukens presented “Oddities in C × C”, a research paper taken from her summer REU (Research Experiences for Undergraduates) at the University of Wyoming. Both papers were well received and Kimberly was awarded one of three “Best Paper” awards at the convention. The award carries both a certificate and a cash stipend. The Cardinal and Cream, Union’s official campus newspaper, published an article about Kimberly’s award in the May 2012 edition. One interesting part of this article is Kim’s statement that the award “reflects well on our university, because it shows that we are at the same level as other colleges.”

What’s next: Plans for Graduating Seniors

Emily Huffman will be heading to Duke University in the fall to pursue a PhD in physics. More specifically, she’s leaning towards studying condensed matter theory and other mathematically intense areas of physics.

Luke Allison will be moving to Louisville, KY to teach high school mathematics and to coach the basketball team.

Jessica Attig plans on teaching high school mathematics.

Rebecca Green plans on teaching secondary mathematics at a school close to her hometown of Trimble, TN.

Seth Kincaid will be working for Corenove over the summer. He is currently in the process of finding a teaching position in the West Tennessee area.

Kim Lukens plans on working in the field of astrophysics.

Alumni News

Jennifer Ellis (’05) is currently a graduate student at the University of Georgia. She will be defending her dissertation in Summer 2012. Jennifer has accepted an Assistant Professor position at Mercer University in Macon, Georgia, to begin in the 2012-2013 academic year. Other Union mathematics alumni in graduate programs include: Matthew Dawson (’08), at Louisiana State University; Robert Michael (’08), at Middle Tennessee State University; Jacob White (’10), at Wake Forest University.

Ryan Spencer plans to stay in Jackson and pursue a science or mathematics teaching position for the 2012-2013 academic year. After their December 2011 graduation, Hannah Maxwell Christensen began working as the Staff Assistant in the Office of Student Financial Planning at Union University.

George Crocker Scholarship

Rebecca Green completed the mathematics major at Union, graduating in Spring 2012. During her time at Union, one of Rebecca’s academic scholarships was cancelled due to the economy. However, Rebecca was able to replace this funding through the George Crocker Memorial Scholarship. George Crocker was a mathematics department alumnus (’56) and his scholarship was set up by his former teacher and mentor, Beverley, who also attended Union. Beverley is married to Richard Martin. Because of Richard and Beverley’s willingness to establish this scholarship for mathematics majors, Rebecca was able to continue to attend Union at a low cost.

Luke Allison in Cameroon

Luke Allison, one of our mathematics majors, became the first math student teacher to do part of his student teaching overseas. Luke spent the first half of the spring semester in the African country of Cameroon. In addition to teaching Algebra, Geometry, and 7th grade math, Luke also led bible studies, coached club volleyball, guest lectured in the ESL class and even spoke at the school’s chapel. The school at which he taught is a Christian school established in 1991 to accommodate missionaries’ kids and currently has an enrollment of approximately 90 students.

When asked about the benefits of such an experience, Luke replied that it gave him an, “opportunity to have a broader experience than simply teaching.” Luke went on to say that his student teaching experience was “spiritual, educational, and cultural.” He said it wasn’t easy, but his advice to other students considering student teaching abroad was, “Absolutely do it!” It is where he learned “the practical sufficiency of God.”

Glenn Van Brummelen Visit

The Mathematics Department at Union had the privilege of welcoming Dr. Glenn Van Brummelen to campus on October 3-4, 2011, as the guest lecturer for the Third Annual Mathematics Lecture Series at Union University. Dr. Van Brummelen is a professor at Quest University Canada and was one of the founding members of this institution. He is a historian of mathematics and is especially interested in the trigonometry and astronomy of ancient Greece and medieval Islam. He is the past president and current university president for the Canadian Society for History and Philosophy of Mathematics, and was a senior fellow at the Dibner Institute for History of Science at MIT. In addition to authoring multiple scholarly and encyclopedia articles, he recently published the first history of trigonometry book in over a century.

Dr. Van Brummelen gave two lectures at Union University. The first lecture was presented at the Mathematics and Computer Science Department Colloquium. Dr. Van Brummelen lectured on the birth of trigonometry in ancient Greece out of the need to predict the positions of heavenly bodies. He explored how astronomers and geographers in Greece, and later in India and medieval Islam, were able to use mathematics to describe the world around them and gave some of the major historical accomplishments of trigonometry. The second lecture was a public lecture on how worldwide can affect mathematics. Dr. Van Brummelen examined how broader cultural assumptions about the structure of knowledge have had surprisingly deep effects on the nature and practices of mathematics. Concentrating mainly on ancient Greece and post-modern China, he compared practices to witness the effect of societal beliefs on concerns of the nature of mathematics.