



# BAYLOR UNIVERSITY

## Graduate Mathematics Program Rankings are Trending Up

Sept. 22, 2015

The well-known Twitter phrase “trending up” also happens to describe the Department of Mathematics at Baylor University. Indeed, the department has made remarkable strides during the past few years to strengthen the quality of its faculty and its programmatic offerings, which in turn has improved its national visibility.

Academic Analytics (AA), which annually uses a purposefully non-reputational, evidence-based methodology akin to that utilized by the National Research Council in its most recent (2010) comparison of research-doctorate programs, ranks Baylor’s doctoral program in mathematics in the 58<sup>th</sup> percentile. This marks a steady climb for the department since 2008 when the department ranked in the 28<sup>th</sup> percentile. Among 167 graduate programs in the AA database for mathematics, Baylor’s mathematics department is currently ranked 19<sup>th</sup> (89<sup>th</sup> percentile) in the metric ‘articles per faculty member’ and 31<sup>st</sup> (82<sup>nd</sup> percentile) in ‘citations per faculty member’. “What I like about these two numbers,” says Dr. Lance Littlejohn, Chair of Baylor’s mathematics department, “is that Baylor’s mathematicians are writing a lot of good papers and they are being read.”

Furthermore, the department ranks in the top 50% in total publications and total citations. This is also significant since the department is considered *small* (15<sup>th</sup> percentile) with only 21 tenured or tenure-track research faculty. Academic Analytics currently places Baylor as the third ranked mathematics department in the Big 12 conference. This ranking pleases Littlejohn who says, “We have one of the newest Ph.D. programs in the country, so our ranking in the Big 12 is a testament to the hard work, drive, and dedication of our faculty. We have hired good faculty who want to see the department move up. At the same time, we realize that we have a long way to go to get where we want to be.”

Throughout much of its 170-year history, Baylor has been known primarily as a teaching institution. As mapped out in its two most recent strategic plans, ‘Baylor 2012’ and ‘Pro Futuris’, Baylor has now transitioned to being a teaching *and* research institution. While currently classified a ‘high research’ university, Baylor has its sights set on ‘very high research’, a designation that would place it among the most elite universities in the nation. The Baylor administration recognizes the achievements of the mathematics faculty and is willing to provide the necessary resources to see that the improvement continues. The department is planning to increase its tenured/tenure-track faculty to 26 members with 32 supported graduate students. Coupling that with impending retirements, the department expects to hire several mathematicians in the next few years. This presents the department with an excellent opportunity to further improve its position and reputation at the national and international levels.

This year, the department is advertising for a new postdoctoral position, a tenure-track assistant professor in applied mathematics, as well as a replacement for the recently retired holder of the Jean and Ralph Storm Chair in Mathematics. The department has research strengths in analysis, algebra, differential equations, mathematical physics, numerical and computational mathematics and topology. Several faculty are engaged in interdisciplinary research with other academic departments on campus. Littlejohn adds, “For the Storm Chair position, we are looking to attract a mathematician with an exceptional record of success in scholarship and in obtaining external

support. The core of our faculty is young and I would like to see our next Storm chair holder, like previous Storm chairs in the department, be a leader who can help further improve our standing in the mathematics community.”

Dr. Larry Lyon, Vice Provost and Dean of the Graduate School, comments “The growing scholarship in the mathematics department has resulted in growing opportunities for their graduate students. The placement rate for new Baylor Ph.D.’s in mathematics is 100%, and not surprisingly, our exit surveys show mathematics graduates to be among the most satisfied with their educational experience. The Graduate School views our Department of Mathematics as a leader in Baylor’s STEM initiative.”

In 2002, the department hired Dr. Johnny Henderson, an internationally known researcher in differential equations and a Fellow of the AMS, to help initiate the Ph.D. program and complement the research program. Dr. Henderson’s research and teaching records are exemplary. He has published more than 450 journal articles and has *averaged* graduating one Ph.D. student per year during his time at Baylor. Since Dr. Henderson’s arrival, the department has hired several young mathematicians who are publishing at a high rate and who have had success in obtaining extramural funding. Faculty members Dr. Robert Kirby, Dr. Ron Morgan and new Associate Professor Dr. Tao Mei currently hold NSF research grants, totaling almost \$1 million.

The mathematics department at Baylor has long been considered an excellent teaching department having a rigorous undergraduate curriculum. Each year, the department sees its well-trained graduating seniors enter top graduate programs in the nation and succeed. A departmental goal is to continue this excellence at the undergraduate level while improving the graduate program. The Ph.D. program, which began in 2002, has seen 40 students graduate with their Ph.D. degrees. The department wants to increase the pool of prospective graduate students and eventually expects to regularly place their Ph.D. graduates into postdoctoral and tenure-track positions at peer institutions. Students interested in the graduate program in mathematics at Baylor should contact their Graduate Program Director, Dr. Mark Sepanski, at [Mark\\_Sepanski@baylor.edu](mailto:Mark_Sepanski@baylor.edu) for further information.

The future is looking bright for the Department of Mathematics at Baylor! For further information, please peruse the department’s web pages which can be found at [www.baylor.edu/math](http://www.baylor.edu/math).

**by Baylor University Graduate School, (254) 710-3588**

---