DEPARTMENT OF MATHEMATICS
COLLEGE OF ARTS AND SCIENCES

Faculty

George Moss (2009). Associate Professor of Mathematics and Department Chair. B.S., Auburn University; Ph.D., Virginia Polytechnic Institute and State University.

Bryan Dawson (1998). University Professor of Mathematics. B.S. and M.S., Pittsburg State University; Ph.D., University of North Texas.

Richard Dehn (1969). Associate Professor of Mathematics. B.S., University of Memphis; M.A.T., Purdue University; M.S., University of Arkansas, Additional study, University of Wisconsin, University of Arkansas, University of Missouri-Rolla.

Chris Hail (1995). Professor of Mathematics. B.S., Campbellsville College; M.A., Morehead State University; Ed.D., University of Kentucky.

Dwayne Jennings (1981). Associate Professor of Mathematics and Computer Science. B.S., Union University; M.S. (Mathematics) and M.S. (Computer Science), University of Memphis.

Matt Lunsford (1993). Professor of Mathematics. B.G.S., Louisiana Tech University; M.S., University of Nebraska; Ph.D., Tulane University.

develops the student's ability to think logically, analytically, and abstractly; to pursue a body of knowledge whose basis is independent of both empirical observation and culture; and to learn humility and a sense of wonder at the complexity, beauty, and applicability of mathematics.

Student Awards

A Departmental Award is given to the senior who places first in the Major Field Test for Mathematics as partial fulfillment of MAT 498.

The Wolfram Research Inc. Award is awarded to a freshman calculus student chosen by the Department of Mathematics based upon demonstrated outstanding achievement, enthusiasm, ingenuity, and creativity in mathematics.

Curriculum

The department offers a major in mathematics and minors in mathematics, mathematics with emphasis in statistics, and actuarial science, and an interdisciplinary minor in Computational Engineering Science. Students majoring in mathematics may select from the following tracks: mathematics, teacher licensure in mathematics for secondary education (grades 7-12), or actuarial science. The offerings of the major provide a foundation for beginning graduate study in mathematics, for entry into mathematics-related work fields, and for teaching mathematics at the secondary level. Students majoring or minoring in mathematics begin their academic credit towards the major or minor with courses numbered MAT 205 or above. Students having a four-year high school mathematics program that included trigonometry should be able to begin the calculus sequence in their first semester.

I. Major in Mathematics—35 hours
   A.

Graduation with Discipline-Specific Honors in Mathematics requires the student must:

- Complete degree requirements with a minimum 3.50 mathematics GPA ,
- Complete each honors contract course with a grade of B or better,
- Present the project at the Union University Scholarship Symposium,
- Apply to present the project at an off-campus meeting, and
- Submit an article based on the project.

Greater detail for admissions, honors contract requirements, and other program specifics is provided at
.

207. Transition Mathematics (3) F
Corequisite: MAT 212.
An introduction to abstract mathematical reasoning, including reading and writing proofs. Topics include logic, types of proofs, set theory, functions and relations.

208. Statistics (3) F; S—As Needed
Prerequisite: MAT 201 or 211.
This is a calculus-based statistics course. Topics include descriptive statistics, probability theory, discrete and continuous random variables, common discrete distributions, the normal distribution, sampling distributions, and applications to confidence interval estimates and hypothesis testing.

413. College Geometry (3) Three-semester rotation
Prerequisites: MAT 207 and 212.
Topics include axiomatic foundations of Euclidean and non-Euclidean geometry, models for incidence geometries, and development of theorems in the geometries of the Euclidean plane and the hyperbolic plane.

415. Abstract Algebra (3) Three-semester rotation
Prerequisites: MAT 207 and 212.
An introduction to the theory of groups and rings. Topics include elementary properties of groups and rings, permutation