# MATH PAthways 

## Higher Education Mathematics Reform

## Mathematics for All Students

Historically, the algebra-to-calculus pathway has been the default college mathematics requirement for students. However, over the last decade it has become clear that this pathway doesn't reflect changes in the types of quantitative skills many students need in their lives and careers.

In response, the Oklahoma State Regents for Higher Education has implemented diversified mathematics pathways. These pathways help ensure that students enroll in mathematics courses that align with their degree of study and the needs of their future career. The four mathematics options are quantitative reasoning, statistics, functions \& modeling and pre-calculus. All four courses are designed to be appropriate for first-time college students.

## Quantitative Reasoning

This course requires students to think critically and apply mathematics to interpret data, draw conclusions and solve problems within a disciplinary or interdisciplinary context.

Degrees of study may include art, art history, elementary education, English, foreign language, history, music and theater.

## Elementary Statistics

This course includes the analysis of data using descriptive statistics, summary statistics, probability and distribution with the intent of developing appropriate use of statistics and communicating results in a clear and effective manner.

Since statistics could be offered in several departments, students should contact colleges or universities for specific degree requirements.

## Functions \& Modeling

This course models real-world problems with the intent of developing appropriate mathematics models and communicating results in a clear and effective manner.

Degrees of study may include accounting, business administration, economics, finance and marketing.

## Pre-Calculus

This course is the first step in the pathway to calculus and is designed explicitly to develop the algebra skills needed for calculus.

Degrees of study may include engineering, chemistry, biology and other STEM majors.

Oklahoma public community colleges and universities accept these mathematics courses to fulfill students' mathematics requirements. All courses are available for qualifying concurrent students. Students should contact colleges or universities for specific degree requirements and course availability.
For more information or questions about Math Pathways, contact Dr. Rachel Bates, OSRHE Associate Vice Chancellor for Educational Partnerships, at rbates@osrhe.edu.

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