

General Education Mathematical Needs of Students

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Mathematics has always been a key component of the liberal arts education in American higher education, but a shift is occurring as to what is needed for current students. To better understand the shifting needs, faculty members representing academic majors from public four-year colleges and universities in a state in the southeastern United States completed a survey about the mathematical needs of students in their programs. The survey responses indicate that the mathematical needs vary between majors but are somewhat consistent within certain meta-majors. These needs are described, and we discuss implications for general studies programs in the mathematical sciences.

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Jim Gleason received his PhD in mathematics and has spent the past 17 years at The University of Alabama focusing on issues involving mathematics education. In addition to advocating for improving introductory college mathematics, he studies mathematical knowledge for teaching and educational measurement. In his free time, he enjoys getting outside and spending time with his family.



W. Gary Martin received his EdD in mathematics education from the University of Georgia and is currently a Lieschuck Endowed Professor of mathematics education at Auburn University. His primary research interest is the programmatic improvement of secondary mathematics teacher preparation, as well as issues around the high school mathematics curriculum, including pathways to higher education.



Mariya Rosenhammer received her master's degree in pure mathematics and is currently in pursuit of a PhD in mathematics education at Auburn University. She has been teaching introductory mathematics college-level courses for 6 years, including at Columbus State University as a lecturer. Her interests include the history of mathematics and fostering mathematical mindsets. In her free time, she likes to paint and travel with her family.