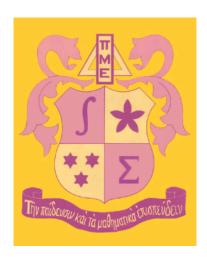
## Pi Mu Epsilon

The mathematics honors society for university students



## Thursday, March 1st, 2018 12:15-12:50 PM in Hume 201

## David R. Bickerstaff

Fellow of the Casualty Actuarial Society Chairman of Bickerstaff, Whatley, Ryan & Burkhalter

## Actuary 101: The Math of Pricing Unpredictable, Destructive Events

We know that unpredictable, financially-destructive events will occur... to someone...somewhere. At a fundamental level, *insurance* is a financial strategy by which a group of people can pool an individually small portion of their resources to redistribute them in the future to those in the group who become victims of costly misfortunate events. But how much should individuals in the group pay to ensure that this program is likely to be solvent? It is the work of an *actuary* to analyze real-world data and build mathematical models to attempt to address this type of question. I will discuss some basic principles and methods that guide actuaries in their work and suggest some curriculum directions that can lead mathematically-inclined students to employment in this field.