Abstract: Very often undergraduate (as well as high school) students struggle to learn to prove and a variety of methods and systems exist to try to help them improve these skills. Also, we know a lot about the general sorts of mistakes students make (believing that an example is a proof, or that a counter-example does not disprove). What is lacking is a way to compare across classes, across proofs, across students, and across graders--basically a reasonably robust coding scheme with inter-rater reliability that is useful in a variety of undergraduate mathematics courses. Our work attempts to create such a coding system. We will describe our process, our current (still-being revised) rubric, and its strengths and weaknesses. Participants will have the fun of trying it on on a few proofs themselves!

† This is joint work with Betseygail Rand from Texas Lutheran

Dr. Strickland received her Ph. D. from Michigan State University in 2008. Her research seeks to better understand and strengthen the curricular/pedagogical experiences and opportunities of students in undergraduate mathematics, especially those that seek to become teachers and/or mathematics majors. Her research revolves around these three nodes:
1) the undergraduate mathematics (and implicit pedagogical) preparation of future teachers,
2) mathematics teacher education and
3) geometry instruction with technology.