1116-E5-1510   **Joe P. Chen*** (`joe.p.chen@uconn.edu`), Department of Mathematics, University of Connecticut, Storrs, CT 06269, and **Thomas W. Roby** (`tom.roby@uconn.edu`), Department of Mathematics, University of Connecticut, Storrs, CT 06269. *Using cultural references and flipped classrooms in teaching undergraduate probability.*

Undergraduate probability has become an increasingly popular course at UConn, with hundreds of students majoring in math, actuarial science, other sciences, and engineering, taking the course every semester. To offer students an experience that is both fun and rigorous, we 1) highlight connections to engaging real-life examples, and 2) focus much classroom instructional time on problem solving.

In this talk we will present our progress on these two fronts.

On point 1, the first author has been creating novel homework and exam problems for probability students over the past two years. Certain difficult-to-understand topics can be explained using accessible, low-tech methods: for example, the (compound) Poisson process as a drinking game; illustrating marginal and conditional distributions using Play-Doh and a plastic knife; or the use of the central limit theorem in UConn basketball.

On point 2, both authors have begun to implement flipped classrooms in our probability classes since Fall 2015. We will present sample video lectures using the recently-developed technology of Lightboard, and explain how the use of video lectures affects the types of activities done in class. Students' feedback has been crucial in our continued fine-tuning of the flipped classroom experience. (Received September 20, 2015)