CS3341 - Probability and Statistics in Computer Science and Software Engineering

**Course Description**
- Axiomatic probability theory, independence, conditional probability.
- Discrete and continuous random variables, special distributions of importance to CS/SE, and expectation.
- Simulation of random variables and Monte Carlo methods. Central limit theorem.
- Basic statistical inference, parameter estimation, hypothesis testing, and linear regression.
- Introduction to stochastic processes.
- Illustrative examples and simulation exercises from queuing, reliability, and other CS/SE applications.

**Credit and Prerequisites**
- Credit cannot be received for both courses, (CS 3341 or SE 3341 or STAT 3341) and ENGR 3341.
- Prerequisites: (MATH 1326 or MATH 2414 or MATH 2419), and (CE 2305 or CS 2305 or TE 2305 with a grade of C or better).
- (Same as SE 3341 and STAT 3341) (3-0) S