MECH6338 - Reliability-Based Design

[MECH 6338](#) Reliability-Based Design (3 semester credit hours) This course covers fundamentals of reliability theory (factor of safety versus reliability, modeling uncertainty, marginal/joint random variable distributions, design process uncertainty), simulation methods and integration, computational issues for correlated random variables and large scale problems, expansion techniques, second moment methods, reliability of structural systems (response surfaces, Fast Fourier Transform approach, series and parallel systems, system reliability), and reliability-based design optimization. Interdisciplinary engineering applications are included. (3-0) Y