



THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Risk and Reliability for Digital Instrumentation and Control Systems

MECHENG 8777

Credit Hours:

3.00 - 3.00

Course Components:

Lecture

Course Description:

Modeling of digital instrumentation systems used in nuclear power reactor systems for reliability, safety, risk, and, security assessment.

Prerequisites and Co-requisites:

Prereq: 4505 (505) or NuclrEn 4505 (505), or permission of instructor.

Course Goals / Objectives:

- Be familiar with the state of the art in digital technology for current and future nuclear power plants
- Be exposed to risk-informed licensing
- Be familiar with the basic safety and risk modeling techniques in the context of digital-based systems
- Be familiar with the reliability quantification techniques for digital-based systems