ENRE - RELIABILITY ENGINEERING

ENRE447 Fundamentals of Reliability Engineering (3 Credits)
Provides a general survey of the techniques of reliability engineering with a focus on theoretical basis and quantitative methods, with frequent examples of application. Topics include mathematical definition of reliability, probabilistic models to represent failure phenomena, statistical life models for non-repairable components, reliability data analysis, failure modes and effects analysis, risk analysis, and system reliability models including fault trees, event trees. Students will learn how to apply these techniques to problems related to engineering systems, with example cases for process plants, energy systems and infrastructure.
Prerequisite: Minimum grade of C- in MATH141 and MATH246.
Restriction: Must be a student in the Clark School of Engineering.
Additional Information: Questions about permission for the course should be directed to enmeundergrad@umd.edu.

ENRE489 Special Topics in Reliability Engineering (3 Credits)
Selected topics of current importance in reliability engineering.
Prerequisite: Permission of ENGR-Mechanical Engineering department.
Repeatable to: 6 credits if content differs.