

# Reliability

## Master of Engineering: 30 Credits / 10 Courses

Students pursuing this option must complete at least six courses in reliability engineering (ENRE), including the two core courses. Electives must be approved by advisor. There is no research or thesis required for this degree.

| Reliability Core Courses (take two): |   |              |
|--------------------------------------|---|--------------|
|                                      | ENRE600 Fundamentals of Failure Mechanisms* | (every fall) |
|                                      | ENRE602 Reliability Analysis*               | (every fall) |

| Reliability Pre-approved Technical Electives (choose at least four): |   |                |
|--|---|----------------|
|  | ENRE489K Special Topics in Reliability Engineering; Design for Reliability                            |                |
|  | ENRE620 Mathematical Techniques of Reliability Engineering*   | (every summer) |
|  | ENRE625 Materials Selection and Mechanical Reliability  |                |
|  | ENRE640 Collection and Analysis of Reliability Data* [ENRE602]  |                |
|  | ENRE641 Probabilistic Physics of Failure and Accelerated Testing*                                     |                |
|  | ENRE642 Reliability Engineering Management  |                |
|  | ENRE645 Human Reliability Analysis*   |                |
|  | ENRE648 Special Problems in Reliability Engineering (up to 6 credits)                                 |                |
|  | ENRE648B Special Problems in Reliability Engineering; Life Cycle Cost and System Sustainment Analysis |                |
|  | ENRE648J Special Problems in Reliability Engineering; Prognostics and Health Management*              |                |
|  | ENRE653 Advanced Reliability and Maintainability Engineering [ENRE602]                                |                |
|  | ENRE655 Advanced Methods in Reliability Engineering* [ENRE602]  |                |
|  | ENRE670 Probabilistic Risk Assessment* [ENRE602]  |                |
|  | ENRE671 Risk Assessment in Engineering* [ENRE670]   |                |
|  | ENRE684 Information Security*   |                |

*NOTE: Any courses not listed above must be approved by the Senior Academic Advisor **PRIOR** to registration.*

### Note:

- ENRE600 and ENRE602 are currently only offered in the Fall Semester.
- Students beginning in the Spring Semester *only* may elect to take ENRE447 and ENRE655 as a substitute for ENRE602.
- Students may not register for more than a total of six credits (equivalent of two 3-credit courses) of ENRE648, Special Problems in Reliability Engineering. For each registration of ENRE648, an approved scholarly paper must be submitted.
- Credit will only be granted for ENRE620, ENPM620 or ENNU620.

| KEY                   |                        |
|-----------------------|------------------------|
| Online Option *       | (offering information) |
| [Prerequisite course] |                        |