

Syllabus
Systems Reliability
SYSM 6327

Course Description

SYSM 6327 - Systems Reliability (3 semester credit hours) This course will provide an advanced understanding of reliability analysis of complex systems, including many of its extended analysis focus areas like availability, maintainability, and supportability (RAMS). Course analysis variables include stress under various conditions, the use of degradation data, relationships between accelerated stresses and normal operating conditions, dependency failures, repairable and non-repairable components, preventive maintenance, replacement and inspection, and accelerated life reliability models, to name a few. The course will also address important reliability metrics, and the impact of reliability in the design, development and management of organizations. Prerequisite: SYSM 6303 or OPRE 6301. (3-0) Y

Course Objectives

To provide students with an understanding of systems reliability modeling and analysis as a basis for product development decisions based on tradeoffs involving multiple alternatives and uncertainty, for application in industry and government as well as in other engineering courses.

Instructor

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Textbook

[System Reliability Theory: Models, Statistical Methods, and Applications, Second Edition](#) by Marvin Rausand and Arnljot Hoyland, John Wiley and Sons (2004)

Course Requirements

Quizzes: In class to be graded
Project: Group semester project

Grading Policy

Quizzes 50%
Project 50%

93-100	A	4.0
90-92	A-	3.7
86-89	B+	3.3
83-85	B	3.0
80-82	B-	2.7
76-79	C+	2.3
73-75	C	2.0
70-72	C-	1.7

Policies

Excused Absences for University Extracurricular Activities: Students participating in an officially sanctioned, scheduled University extracurricular activity should be given the opportunity to make up class assignments or other graded assignments missed as a result of their participation. It is the responsibility of the student to make arrangements with the instructor prior to any missed scheduled examination or other missed assignment for making up the work. (University Undergraduate Catalogue)

Student Learning Outcomes: Please include in your syllabi all student learning outcomes, both those specific to your course, as well as those that satisfy major and general education requirements.

Final Exams: Final course examinations shall be given in all courses where they are appropriate, and some form of final assessment is essential. Please state clearly in the syllabus the date/time and form of the final exam or assessment

Incomplete Grade Policy: A student may receive a grade of I (Incomplete) in a course if passing work has been done but for some justifiable reason, acceptable to the instructor, the student has been unable to complete the full requirements of the course. In accordance with University policy, at the time an Incomplete is given the instructor must stipulate in writing to the student and to the department the requirements and completion date that are to be met and the grade that will be given if the requirements are not met by the completion date. The maximum period of time that is allowed to complete course requirements and clear the Incomplete grade is 12 months after the end of the semester in which the Incomplete was received. If the Incomplete grade is not cleared by the date set by the instructor or by the end of the 12 months deadline, the instructor will initiate the grade change to the grade provided, or to an F if there is no alternate grade.

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

“As a Comet, I pledge honesty, integrity, and service in all that I do.”