

Classes: Mondays, Wednesdays, Fridays 12:15 - 1: 20 PM

Instructor: David M Kender

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Office Hours: As posted and by appointment.

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Course Description: Application of statistical analysis techniques including, probability distributions, sampling theory, statistical inference (parameter estimation and hypothesis testing), correlation and regression, and analysis of variance.

Course Objectives: Students will be able to design an experiment and interpret and analyze relevant data using statistical inference methods including hypothesis testing, regression analysis, analysis of variance.

Course Requirements and Evaluation: Students are expected to participate in all scheduled classes. Course grades will be based on several criteria including a subjective evaluation of effort, learning, and understanding.

Text: Applied Statistics and Probability for Engineers, 4ed Montgomery and Runger, 2007

Calculators: An electronic calculator capable of computing sample means and standards deviations, as well as Least Squares Regressions, is highly recommended.

Homework: Homework will be assigned throughout the quarter. Students are encouraged to work collaboratively and to seek help from the instructor as needed. Assigned homework exercises will be used as a basis for classroom quizzes. Selected homework assignments may be collected and graded at the instructor's discretion.

Quizzes: Unannounced quizzes will be used at the instructor's discretion. No makeup quizzes will be available. **Students who are absent from class will receive zero points for that quiz.** Quizzes will normally cover the concepts previously discussed in class and/or the ideas that were emphasized in the homework exercises.

Project: A comprehensive analysis project constitutes an important element of the course. The project will be a team effort (three students per team) and consist of interpreting, analyzing, evaluating, and reporting on data related to an engineering scenario. The data set will be provided by the instructor.

Tests: Three tests (including the final exam) are scheduled. The tests will be closed-book, however students are permitted and encouraged to use two pages of student generated notes as well as their calculators. Although collaborative learning is encouraged for homework assignments/projects, tests are to be individual effort only.

Academic Integrity: The instructor fully endorses the Wright State University policy to uphold and support standards of personal honesty and integrity for all students consistent with the goals of a community of scholars and students seeking knowledge and truth.

Reasonable Accommodations Policy: Any student with a disability that may prevent them from fully demonstrating their abilities should contact me personally as well as the **Office of Disability Services** as soon as possible so we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunities.

Grading Criteria: Grades will be awarded as follows.

<u>Element</u>	<u>Number</u>	<u>Proportional Value</u>	<u>Grades</u>
Homework, Quizzes, Project	Points vary	10%	90 - 100% A
Tests	Three (Including Final Exam)	90% (30% each)	80 - 89% B
			70 - 79% C
			60 - 69% D
			< 60% F