EGEN350 – Applied Engineering Data Analysis: Fall 2013

Section 01: Lecture  MW  1410-1500  LEWH 304
Section 02: Lecture  TR  1510-1600  ROBH 101

INSTRUCTOR: Steven Rutherford PhD.,

Office: Roberts Hall Room 120
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Office Hours: M 3:10-4, T 4:10-5, W 3:10-4, R 4:10-5 F 12:00-12:50
(please email me to set up another time)
Additionally, a “workshop” will be added: date and location TBA.
Previous weeks’ homework solutions will be available at this “workshop”.
*With many “workshop” and office hours, please GET HELP if needed!*

CATALOG DATA: EGEN350 – Applied Engineering Data Analysis: 2 credits (2 lectures).
PREREQUISITE: M 166 or M 172.
-- An overview of data variability and applied statistical experimental design with analysis
techniques for a broad range of engineering disciplines. Topics include essential probability
distributions, experimental design strategies, hypothesis testing, and regression with applications
to traditional engineering functions.


COURSE OBJECTIVES: Understand and apply basic probability and statistics concepts to
engineering problems.

COMPUTER USAGE: Basic MS Excel skills required, scientific calculator

LECTURE STYLE: “On the board” and Power Point, Questions/participation are encouraged!
Lectures will be posted on D2L but they will be DELIBERATELY INCOMPLETE!

SPECIAL NEEDS:
If you have a documented disability for which you are or may be requesting an
accommodation(s), you are encouraged to contact your instructor and Disabled Student Services
as soon as possible. Students will be asked to show their “blue card” for special accommodation
provisions.

STUDENT CONDUCT:
Students are expected to conduct themselves in accordance with the MSU Student Conduct
Guidelines (http://www2.montana.edu/policy/student_conduct) academic honesty, behavior, and
responsibilities.
ASSESSMENT AND EVALUATION:
Successful completion of EGEN 350 will require:
- Completing homework assignments on time.
- Class attendance and participation (role not taken)

Grading:
- Homework: 15%
- Exam 1: 35%
- Final Exam: 40%
- Project 1: 5%
- Project 2: 5%

Final grades will be assigned based upon the following:
A: >92% to 100%, A-: 90% to 92%, B+: 88% to < 90%, B: > 82% to < 88%, B-: 80% to 82%
C+: 78% to < 80%, C: >72% to <78%, C-: 70% to 72%, D+: 68% to <70%, D: 60% to < 68%

Homework:
Homework will be assigned via D2L and due by 5pm on the specified day. A box outside ROBH 220 will be provided for submission. It will be scored on a scale of 0-2 points with problems will be selected at random. Late homework is not accepted.

Exam 1: CLOSED BOOK, 1 PAGE OF NOTES (2 SIDES)
Date (Evening exam BOTH SECTIONS): R 10/17/13 7-9 pm Location: TBD

Final Exam: Comprehensive and required; OPEN BOOK
Time: Monday, December 9, 2013, 10-11:50pm; Location: Roberts Hall Room 101, 102, 113

ABSOLUTELY NO MAKE-UP EXAMS!!

Important Dates (subject to change):
- 9/13 Homework 1 due
- 9/23 Homework 2 due
- 9/30 Homework 3 due
- 10/8 Homework 4 due
- 10/17 Common Evening Exam 7-9 pm
- 10/25 Project 1: Upload to D2L by 5 pm
- 11/4 Homework 5 due
- 11/15 Homework 6 due
- 11/22 Homework 7 due
- 12/5 Homework 8 due
- 12/6 Project 2: Upload to D2L by 5 pm
- 12/9 Final Exam: 10-11:50pm, ROBH Room 101, 102, 113
COURSE LEARNING OUTCOMES:

Students will interpret data variability
Students will evaluate probability statements
Students will compare and compute probability distributions
Students will devise and evaluate hypothesis tests
Students will devise and evaluate Analysis of Variance (ANOVA)