

Instructor: Gargi Mallik (email: mgargi@gmail.com), Snedecor Hall
TA : Run Wang (email: runwang@iastate.edu), Snedecor Hall

Lecture: Tue Thu 8:00 AM - 9:20 AM LAGO W0272

Office Hours: Tues, Thursday 10:30-11:30 AM in Snedecor Hall

TA office hours: Mon, Weds 10:30 – 11:30 AM in Snedecor Hall

You can also ask questions through emails at any time (emails will be answered within 24 hours – so do not email at the last minute before homework submission or right before exams)

Textbook: *Basic Engineering Data Collection and Analysis* (ISBN 0-534-36957-X) by S. B. Vardeman and J. M. Jobe, published in 2001 by Duxbury/Thomson Learning.

Webpage: Iowa State BlackBoard (Bb)

Course Requirements:

- **Learning Outcome:** By the end of this course, students should learn basic concepts of statistics and probability to solve problems arising in engineering applications.
- **Homework:** Weekly assignments will be collected on **Thursdays**. No late homework will be accepted. Homework will be collected at the **beginning** of Thursday's class.
- **2 Exams and 1 Final exam:** All these exams will be in the classroom, on the date and time specified below. Final exam is comprehensive.

Grading System:

Letter grades including plus/minus will be based upon the following weightage

Exam 1 (25% of grade): On **TBD** (Thursday, during class)

Exam 2 (25% of grade): On **TBD** (Thursday, during class)

Homework (20% of grade): 10 HWs will be collected on Thursdays– about 1 per week (except a few).

Final (30% of grade): On **12/11** (**Monday** in class) during **7:30-9:30 a.m.**

Guarantees of minimum grades in the course are: 95 or above = A, 90 or above = A- or better, 80 or above = B- or better, 70 or above = C- or better, 60 or above = D- or better ...

Tentative Course Outline

| Week | Topic (Quizzes) | Book Chapter (Section) | Homework, Exams, Supplement, Comments |
|------|---|-------------------------|--|
| 1 | Introduction, Data Collection | Ch.1, 2 | Read syllabus carefully, HW1 assigned , |
| 2 | Descriptive Statistics | Ch 3 (1,2) | See Ch 3 handouts (in "Resources" link on the left panel of Blackboard). HW1 due, HW2 assigned |
| 3 | Descriptive Statistics, Line Fitting | Ch. 3 (3), Ch. 4 (1, 2) | HW2 due, HW3 assigned |
| 4 | Curve and Surface Fitting, | Ch. 4 (2, JMP) | See Ch 4 (and JMP) handouts in "Resources" HW3 due, HW4 assigned |
| 5 | Random Variables | Ch. 5 (1) | HW4 due, HW5 assigned (due in 2 weeks) See Ch 5 handouts (in "Resources") See sample Exam 1 (in "Resources") |
| 6 | Random Variables | Ch. 5 (1) | |
| 7 | Random Variables | Ch. 5 (2) | HW5 due, HW6 assigned Exam 1 (in-class, on Thursday) covering Ch. 1-4 |
| 8 | Random Variables | Ch. 5 (2) | HW6 due, HW7 assigned (due in 2 weeks) |
| 9 | Random Variables | Ch. 5 (4,5), | |
| 10 | Random Variables, Simple Inference | Ch. 5 (5), Ch. 6 (1) | HW7 due, HW8 assigned (due in 2 weeks) See Ch 6 handouts. See sample Exam 2 (in "Resources") |
| 11 | Simple Inference | Ch. 6 (1) | |
| 12 | Simple Inference | Ch. 6 (2,3) | HW8 due, HW9 assigned (due in 3 weeks) Exam 2 (in-class, on Thursday) covering Ch. 5 |
| 13 | Simple Inference | Ch. 6 (3,6), | |
| 14 | Thanksgiving Break | | |
| 15 | One Way Model CI's for Linear Functions of Means, | Ch. 7 (1,2) | HW9 due, HW10 assigned , |
| 16 | One Way ANOVA, Control Charts, / Review | Ch. 7 (4, 5) | HW10 due See sample FINAL Exam (in "Resources") |
| 17 | Final Exam | | Finals (in-class, see exact date and time above) (Comprehensive with more emphasis on Ch 6 -7) |

Academic Dishonesty

The class will follow Iowa State University's policy on academic dishonesty. Anyone suspected of academic dishonesty will be reported to the Dean of Students Office.

<http://www.dso.iastate.edu/ja/academic/misconduct.html>

Disability Accommodation

Iowa State University complies with the Americans with Disabilities Act and Sect 504 of the Rehabilitation Act. If you have a disability and anticipate needing accommodations in this course, please contact (instructor name) to set up a meeting within the first two weeks of the semester or as soon as you become aware of your need. Before meeting with (instructor name), you will need to obtain a SAAR form with recommendations for accommodations from the [Disability Resources Office](#), located in Room 1076 on the main floor of the Student Services Building. Their telephone number is 515-294-7220 or email disabilityresources@iastate.edu. Retroactive requests for accommodations will not be honored.

Dead Week

This class follows the Iowa State University Dead Week policy as noted in section 10.6.4 of the Faculty Handbook <http://www.provost.iastate.edu/resources/faculty-handbook>.

Harassment and Discrimination

Iowa State University strives to maintain our campus as a place of work and study for faculty, staff, and students that is free of all forms of prohibited discrimination and harassment based upon race, ethnicity, sex (including sexual assault), pregnancy, color, religion, national origin, physical or mental disability, age, marital status, sexual orientation, gender identity, genetic information, or status as a U.S. veteran. Any student who has concerns about such behavior should contact his/her instructor, [Student Assistance](#) at 515-294-1020 or email dso-sas@iastate.edu, or the [Office of Equal Opportunity and Compliance](#) at 515-294-7612.

Religious Accommodation

If an academic or work requirement conflicts with your religious practices and/or observances, you may request reasonable accommodations. Your request must be in writing, and your instructor or supervisor will review the request. You or your instructor may also seek assistance from the [Dean of Students Office](#) or the [Office of Equal Opportunity and Compliance](#).

Contact Information

If you are experiencing, or have experienced, a problem with any of the above issues, email academicissues@iastate.edu.

Syllabus subject to change.