

Lectures: TTh 3:40–5:00 p.m.; Pearson 1106

Instructor: Dr. Huaqing Wu

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Office Hours: TTh 2–3:30 p.m. in **3753 Gilman Hall**; or by appointment

Current Course Resources:

<http://www.public.iastate.edu/~isuhwu/stat531/stat531.html>

Course Grade: Assignments (20%), Midterm exam (40%), Final exam (40%)

Accommodations for Students with Disabilities:

If you have a disability and require accommodations, please contact the instructor early in the semester so that your learning needs may be appropriately met. You will need to provide documentation of your disability to the Disability Resources (DR) office, located on the main floor of the Student Services Building, Room 1076, 515-294-7220.

Texts:

- *Statistical Quality Assurance Methods for Engineers*, by Vardeman and Jobe, John Wiley and Sons, 1999
- *Graduate Lectures and Problems in Quality Control and Engineering Statistics*, Course Notes by Vardeman to Supplement the Text

Topics and Tentative Schedule:

- Introduction and a Useful Preliminary from Probability (.5 week)
- Statistics and Engineering Measurement (3 weeks)
- Process Monitoring (5.5 weeks)
- Engineering Control and Stochastic Control (1.5 weeks)
- Process Characterization and Capability (1.5 weeks)
- Sampling Inspection (2.5 weeks)

Some Other Books:

- *Statistical Quality Control: Theory and Practice*, Wetherill and Brown, Chapman and Hall, 1991
- *Quality Control and Industrial Statistics*, 5th Edition, Duncan, Irwin, 1986
- *Basic Engineering Data Collection and Analysis*, Vardeman and Jobe, Duxbury-Thomson Learning, 2001
- *Statistics for Engineering Problem Solving*, Vardeman, PWS Publishers, 1994