

# Quality Engineering and Management

Dr. Steve Johnson

Fall, 2006

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**Textbook:** *Quality Planning and Analysis* (4<sup>th</sup> Ed.) by Frank M. Gryna. McGraw-Hill, 2001.

**Grading:** First Exam (30%)  
Cumulative Second Exam (30%)  
Comprehensive Final Exam (40%)

Homework assignments and quizzes will be integrated into the test scores (e.g., an individual assignment might be worth five points toward the next exam score).

<i>Grade</i>	<i>Scale</i>
A	90 - 100
B	80 - 89.9
C	70 - 79.9
D	60 - 69.9
F	Below 60

## ***Academic Dishonesty Policy***

The University of Arkansas strives to be a center of academic excellence. As part of our Statement of Ethics, the University strives to preserve academic honor and integrity by repudiating all forms of academic and intellectual dishonesty, including cheating, plagiarism and all other forms of academic dishonesty. Academic dishonesty is unacceptable and is subject to a disciplinary response.

- Students who are caught cheating or committing plagiarism may be given a failing grade in the course by the professor and may be subject to dismissal or further discipline.
- Plagiarism is often misunderstood. It can be defined as submitting someone else's work as your own. It is not permissible to "cut and paste" and then just cite another's work. In writing for homework, case studies, or projects, you should read and learn, process through your mind, relate ideas, and then express what you learned **in your own words**. Cite the references where you found your information. If you do use someone else's words, you must use quotation marks and cite. You should not overuse quotes – save them for rare occurrences.

Quality Management Material			Statistical Quality Control	
Sequence	Chapter	Content	Chapter	Content
1	--	Introduction and the History of Quality	10.1-7	Collecting, Organizing and Presenting Data
2	1	Quality in a Changing Business Culture	10.8, 11.1-9	From Data to Probabilities and Back
3	15.1-5	Quality in a Supply Chain	10.9-10	Using the "Normal" Distribution
4	2.1-5	Costs of Poor Quality	18.1-5	Introduction to Control Charts
5	12	Focus on the Customer	18..6	Control Charts for Variables
6	<b>First Exam</b>			
7	13.1-10	Designing for Quality I	--	Modified Control Charts
8	13.11-14	Designing for Quality II	18.10	Process Capability Analysis
9	15.6-8	Quality in Supply Chain Mgmt	--	Using Discrete Probability Distributions
10	3.1-5	Continuous Improvement	10.13-14	Control Charts for Attributes
11	3.6-12 18.15, web	Introduction to Six Sigma	18.8	Control Charts for Attributes (cont.)
12	<b>Second Cumulative Exam</b>			
11	22.10, web	ISO 9000 Quality Mgmt System[	handout	Measurement of Inspection Performance
12	2.9 & web	Malcomb Baldrige Award	19.1-19.10	Introduction to Sampling Plans
13	10.1-7	Statistically Based Decision Making	19.12-14	Sampling Plans for Attributes
14	11.7-10	Process Improvement using Design of Experiments	19.15-19	ANSI/ASQC/Mil Standard Plans
15	11.11-14	Putting it All Together	--	Sampling Plans for Variables
16	<b>Final Comprehensive Exam</b>			