

**MGT. 4800 - QUALITY MANAGEMENT SYSTEMS
COURSE SYLLABUS - FALL 2009**

INSTRUCTOR:	Dr. Brian Atwater
OFFICE:	302B Business Building
PHONE:	797-3982 (office), 797- 1091 (fax)
EMAIL:	Brian.Atwater@usu.edu
OFFICE HRS:	9:00-10:30 Tuesday & Thursday; & by appointment
TEXT:	NO TEXT – Course Reading will be posted on Blackboard

COURSE PERSPECTIVE AND OBJECTIVES:

One of the most important skills a manager can have is the ability to improve the work activities that they oversee. It is a skill that is highly valued by employers as evidenced by the high demand for and salaries paid to people who have a demonstrated track record conducting improvement projects (i.e. six sigma black belts, TOC Jonah's, lean production experts, etc.). Unfortunately, very few managers really understand how to carry out a well-executed improvement project. From this perspective the upon completion of this course students should be able to:

- 1. Identify & explain the major philosophies, concepts, and terminology related to quality management.*
- 2. Anticipate & recognize common obstacles to continuous improvement and identify ways to avoid or overcome them.*
- 3. Plan and coordinate a process analysis and improvement project.*
- 4. Identify, select, and use the appropriate analytical tool in a wide variety of situations.*

GRADE SCALE:	100%-93% = A	86%-83% = B	72%-70% = C-	69%-67% = D+
	92%-90% = A-	79%-77% = C+	82%-80% = B-	BELOW 60% = F
	89%-87% = B+	76%-73% = C	66%-60% = D	

EVALUATION METHOD:	Midterm Exam	10%
	Final Exam	15%
	Class Assignments	25%
	Class Participation	25%
	Quality System Report	<u>25%</u>
		100%

EXAMS: While I don't feel that exams are the best way to assess student learning they are one form of doing so. Consequently, there will be two exams given during the course. Both exams will have two parts - Closed Book & Open Book. The closed book section will be given 1st and will be multiple choice questions over the basic concepts discussed in the section. The open book will be composed of problems &/or essay questions.

The FINAL EXAM IS COMPREHENSIVE which is why it receives a heavier weight. It will be in the same format as the first exam. Part 1 will be closed book and it will be composed of multiple choice questions taken from the first two exams. Part 2 will be open book will still be composed of problems and essay questions.

CLASS ASSIGNMENTS: Throughout the course various cases, exercises, and other activities will be assigned. These assignments are designed to give you some experience using the various tools and concepts discussed in the class. Your scores on these assignments will make-up 25% of your overall grade.

CLASS PARTICIPATION: Each class I expect you to come ready to discuss the required readings. I feel strongly that coming to class having read the assignment so that you can intelligently participate in class discussions and apply the concepts to activities is an essential part of the learning process. Your ability to *constructively participate* in class will comprise 25% of your grade.

QUALITY SYSTEM STUDY: Working in groups of 2-3 students will select an operation of interest to them and perform a detailed analysis of that operation's quality management system. The written report should include some discussion about quality practices within the industry the company operates as well as a description of the company's specific practices. At a minimum the report should include information about their efforts related to quality control, process improvement, and customer/supplier relationships. Information should be collected from multiple sources including (but not necessarily limited to) periodical articles, Internet sources, and interviews. The report is due at the end of the course and is worth 25% of your grade.

BA 5730 Fall 2005 – TENTATIVE COURSE OUTLINE

The following is a TENTATIVE outline for the course. As the term tentative implies this outline is subject to change based on events such as the scheduling of a speaker, certain material taking more (or less) time than anticipated etc. You will be notified of any changes in-class at the first opportunity. I will also post notices about course changes on the Blackboard page between classes. Note: Reading ASSIGNMENTS reflect material to be read for the next class discussion (i.e. Statistical Thinking and Application should be read for class on Aug.27th).

<u>Date</u>	<u>Topic</u>
Aug. 25	Course Introduction – Logistics (Blackboard etc.); Class philosophy <ul style="list-style-type: none">• Reading Assignment: Basic Statistics Review
Aug. 27	The Role of Variation in Process Performance <ul style="list-style-type: none">• Reading Assignment: Statistical Thinking and Application
Sept. 1	Six Sigma Overview <ul style="list-style-type: none">• Reading Assignment: The Statistical Basis for Six Sigma
Sept. 3	Basic Statistics Review <ul style="list-style-type: none">• Reading Assignment: Statistical Process Control
Sept. 8	Statistical Process Control (SPC)
Sept. 10	SPC Exercise (Control Charts & Process Capability) – Day 1
Sept. 15	SPC Exercise – Day 2 <ul style="list-style-type: none">• Reading Assignment: Using DOE & ANOVA to Guide Improvement Efforts
Sept. 17	Operational Excellence Conference (No Class)
Sept. 22	OE Conference Debrief
Sept. 24	Introduction to DOE & ANOVA
Sept. 29	DOE & ANOVA Exercise - Day 1
Oct. 1	DOE & ANOVA Exercise - Day 2
Oct. 6	DOE & ANOVA Exercise - Day 3

- Oct. 8 Section wrap-up & Review
- Oct. 13 EXAM 1
- Reading Assignment: Tools for Process Improvement
- Oct. 15 No Class – Students follow MWF Schedule that day**
- Oct. 20 Structured Process Analysis & Improvement Overview – The 7 Step Process & DMAIC
- Oct. 22 Structured Process Analysis & Improvement Tools Day 1 – Flowcharting
- Oct. 27 Structured Process Analysis & Improvement Tools Day 2 – Check Sheets & Pareto Diagrams
- Oct. 29 Structured Process Analysis & Improvement Tools Day 3 – Cause & Effect Diagrams
- Nov. 3 Structured Process Analysis & Improvement – Material Wrap up
- Reading Assignment: The Shingo Prize Model
- Nov. 5 The Shingo Prize
- Reading Assignment: Toyota Production System (TPS) – System Design & Operation
- Nov. 10 Creating a Learning Organization
- Reading Assignment: TPS – Problem Solving
- Nov. 12 Creating a Learning Organization – Day 2
- Reading Assignment: “Goldratt's Theory Of Constraints : A Systems Approach To Continuous Improvement”, Dettmer, W., ASQC Quality Press, 1997 pp. 3-22.
- Nov. 17 Introduction to Theory of Constraints
- Nov. 19 TOC Day 2
- Nov. 24 TOC Day 3
- Nov. 26 Thanksgiving Break – No Class**
- Dec. 1 Buffer Class for Plant Tour
- Dec. 3 Buffer Class for Plant Tour

Dec. 8 - Final Exam - 11:30-1:20