22-OM-772 Six Sigma and Process Improvement – Spring 2006

Instructor:
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Objective The objective of this course is to develop your knowledge and expertise on Six Sigma at the level of somewhere between a "Green Belt" and a "Black Belt" in business. It will tie together basic principles of statistics learned in other MBA courses along with basic quality and productivity improvement methodologies and tools.

Text: Evans/Lindsay, *An Introduction to Six Sigma & Process Improvement*, Thomson-Southwestern, 2005.

Course Web Site: All course information can be found at the Blackboard Web site. You are expected to be able to access and use this material. *I will not be providing hard copies of any PowerPoint slides or other material otherwise available to you electronically.*

Incomplete Policy: The university policy is: The I grade will be given only if a student, through no fault of his/her own, is unable to complete the course and has an excused absence from the instructor. Students receiving an I grade must contact the instructor during the first week of the immediately following quarter to arrange a procedure for completing the course.

My expectations:

- Be on-time for all classes and participate
- Maintain an uninterrupted focus for the duration of class (e.g. turn off cell phones)
- Maintain a professional atmosphere and respect for the instructor and fellow students, and refrain from distracting side conversations while others are talking
- Complete your assignments fully and on time

Grading:

Class Participation: 30%
Assignments: 40%
Term project: 30%

Term Project

You may choose from any one of several options.

Team or individual project: You may work as a team of 2-3 on a real project that addresses at least the "DMA" parts of DMAIC/DMADV or some design issue that uses DFSS methodology. This might require some reading ahead or use of other references. This might entail a project at your workplace (if more than one of you are employed at the same company, this can be done as a team) – I do want you to discuss any ideas with me and get approval. I also have a few projects set up around the CoB that would make good team projects. FIRST-COME, FIRST SERVED if you are interested:

(1) Student course evaluation process. This process is a paper questionnaire that uses a form which produces a high error rate when scanned. When the Senior Associate Dean watched the work study entering the data earlier last quarter, the error rate was about 90%. Virtually every scan had to be edited. The client contact is Senior Associate Dean Bill Whitaker.

(2) The Grad Office handles all of the graduate applications from initial contact to communicating the decision for: full-time MBA programs, 4 part-time MBA programs (different starts and locations), and all the MSBA programs. It is complicated by the fact that admissions decisions are decentralized, and probably is ripe for improvement. The client contact is Professor Steve Slezak.

Individual project: You may select from one of the following "Things to Do" questions at the end of the text chapters. These may not be duplicated, so FIRST-COME, FIRST SERVED upon my approval.

Chapter 1, question 3
Chapter 2, question 3
Chapter 5, question 2
Chapter 6, question 2
Chapter 6, question 7
Chapter 7, question 1
Chapter 8, question 2
Chapter 9, question 2
Chapter 10, question 5

Course Schedule

Date	Text Chapters	Other Readings (Please read prior to class and be prepared to discuss)	Assignments (due next class)*
March 30	Chapters 1 & 2	(1) Evolution of six sigma.pdf (1) Six sigma at a bank.pdf (2) DMAIC case.pdf	Chapter 1: DQ 9 Chapter 2: P 2, 3, 6
April 6	Chapters 3-5	(3) 5 steps to success.pdf (3) Selecting six sigma projects.pdf (4) Capability indexes.pdf (4) How to perform a proc cap study.pdf	Chapter 3: P 8 Chapter 4: DQ 3, P 8, 10 Chapter 5, P 6

		(5) Process management and org performance.pdf	
April 13	Chapters 6 & 7	(6) Innovation.pdf (6) Lean six sigma and xerox.pdf (7) Process positioning.pdf	Chapter 6: P 3 Chapter 7: P 3, 7
April 20	Chapters 8 & 9	(8) DFSS at Ford.pdf (8) DFSS lessons learned.pdf (8) FMEA simple.pdf (9) DOE.pdf	Chapter 8, P 10, 12 Chapter 9, P 2, 7
April 27	Chapter 10	(10) Common six sigma problems.pdf (10) Dutch hospital case.pdf (10) Honeywell.pdf (10) Where has all the magic gone.pdf (10) Beyond manufacturing.pdf	

*DQ means Discussion Question – NOT the Review Questions in the chapters; P means Problem