

**ISE 527 - Quality Management for Engineers (3 Units)**  
**Summer Semester 2016**  
**Tue. & Th. 5:30 - 8:50 pm**  
**Room: OHE 100-D**

Instructor: Ali Nowroozi  
Office: GER216C  
Hours: Tuesdays 3:15 pm – 5:15 pm (by appointment)  
Phone: 213-740-0867 (During office hours ONLY)  
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Teaching Assistant: TBD  
Office: TBD  
Hours: TBD  
Phone: TBD  
E-mail\*: TBD

**Objective:** In this course, you will improve your competencies, in a structured manner, to develop, deploy, and maintain systems of business practices that assure marketplace superiority of the products and services provided by your company.

We will compare and contrast the philosophical frameworks advocated by celebrated management consultants such as *Deming*, *Juran*, and *Crosby*. We will examine National Malcolm Baldrige Quality Award (*MBNQA*) and international (*ISO 9000*) management system models as well as other support systems such as *Six-Sigma* and *Lean* that have become standards in the field.

We will also review a variety of methods that have been used to implement the models. Case studies of award winning companies will be used to demonstrate successful practices. Local or hypothetical businesses will be evaluated to identify deficient practices and improvement strategies.

**Text Book:** Evans and Lindsay, Managing for Quality and Performance Excellence, 9<sup>th</sup> edition

**Course Material:** Text Book, all topics discussed in lecture by the instructor, guest speaker (if any), other students, and the all related handouts.

**Study Guidelines:** The lectures and class discussions are not limited to reading assignments. Merely reading the text book does not guarantee students' successful completion of the course. The instructor's Class notes are not sufficient either and all students are responsible to take their own notes in the class and use them to study and elevate their understanding of the reading materials and the class discussions.

**Performance Evaluation:**

Homework	300 (6 assignments, 50 points each)
Midterm Exam	400 (Take-Home)
Final Exam	200
<u>Class Participation*</u>	<u>100</u> (See below)
Total	1000

CLASS PARTICIPATION (100 Points) consists of two portions:

- *IN CLASS* students are evaluated based on the level and the quality of their participation in class discussions. While we do not take attendance in this course, students who miss the lectures will also miss the opportunity to improve their scores through class participation.
- *DEN* students are primarily evaluated based on their assessment of the class discussions, posted on the discussion board, under the appropriate lecture forum, **within one week of the lecture**. They are also encouraged to participate live in class discussions and will get credit for that. Text

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\* All written communications with the Instructor or the Teaching Assistant must be through emails. Emails are normally answered in two business days. We will not answer the questions that students post on the Blackboard. The Blackboard forums are for course-related discussions among the students only.

*messaging through WebEx is not the most effective way of communication, but it will be accounted for as practically as possible, if a student has no other option.*

- *ALL STUDENTS TO AVOID USING THE DISCUSSION MEDIA (D2L, WEBEX, ETC.) TO ASK QUESTIONS FROM THE INSTRUCTION TEAM OR TO DISCUSS PERSONAL/NON-COURSE RELATED TOPICS (EXCEPTION: THE WELCOME PAGE OF THE COURSE SITE IS DESIGNED FOR POSTING PERSONAL INFORMATION). ALL QUESTIONS SHOULD BE EMAILED FIRST TO THE TA AND THEN, IF NOT RESPONDED TO, TO THE INSTRUCTOR, DIRECTLY.*
- *The Course instructor will be the sole judge of students' level of class participation.*

All HOMEWORKS and take-home assignments (if any) **MUST** be performed individually, unless specified differently. While it is inevitable to answer some “definition” questions using book words (e.g. “what is the definition of quality?”), students must attempt to use their intellect and answer the questions their own words. In case of necessity, appropriate quotation is required.

All EXAMS will be open-book, lasting for 2 hours. It is possible to have an “optional” Final exam, depending on the students' overall performance throughout the semester.

EXAMS DATES are provided in the next page. All students must take the exams on the exams dates and times. Exceptions only include special cases such as sickness, time zone difference (for DEN students), or such unavoidable circumstances. PLEASE DO NOT SCHEDULE ANY TRIPS ON THE EXAM DATES. **PERSONAL OR BUSINESS ENGAGEMENTS DO NOT JUSTIFY EXAM DATE & TIME CHANGES.**


#### **Final Grades:**

Course FINAL GRADES will be determined by the distribution of point totals for the class. “Natural groupings” will be used to assign letter grades. The highest scoring group will receive A's, the next group is the A-'s, and so on. A single point will not be the difference between any two letter grades. A “gap” must exist to create a grade boundary. If there are no gaps, everyone could get A's!

THE GRADING PROCESS WILL BE EXPLAINED IN DETAILS IN THE SECOND LECTURE. STUDENTS ARE RESPONSIBLE TO UNDERSTAND THE PROCESS CLEARLY AS THEIR ACTUAL PERFORMANCE MAY DIFFER FROM THEIR PERCEIVED PERFORMANCE WHICH IS CONVENTIONALLY BASED ON PERCENTAGES ONLY.

THIS IS A QUALITATIVE MANAGEMENT COURSE AND STUDENTS PERFORMANCE ASSESSMENT IS SUBJECT TO THE INSTRUCTOR'S JUDGEMENT. EACH STUDENT'S PERFORMANCE DATA (**TACIT KNOWLEDGE**) COMBINED WITH THE INSTRUCTOR'S INTUITIVE ASSESSMENT OF HIS/HER LEVEL OF EFFORT AND LEARNING EXPERIENCE (**IMPLICIT KNOWLEDGE**) WILL DETERMINE THAT STUDENT'S OVERALL GRADE. ULTIMATELY, THE INSTRUCTOR WILL BE THE SOLE JUDGE OF ALL STUDENTS' INCREMENTAL AND FINAL GPA'S.

# Assignments and Due Dates (as of 05/22/15):

Session	DATE	TOPIC	ASSIGNMENTS DISTRIBUTION	ASSIGNMENTS DUE	READING ASSIGNMENT*
1	May 19	Define Quality, "Total Quality"	HW #1		Chapter 1
2	May 24	Foundations of QM & Philosophical Frameworks			Chapter 2: pp 47-69
3	May 26	Management System Models (Baldrige, ISO, Europe, China)	HW #2	HW #1	Chapter 2: pp 78-93 Chapter 10
N/A	May 31	Statistical Thinking			Chapter 6
4	June 02	Six Sigma & Lean			Chapter 9
5	June 07	Customer Focus	HW #3	HW #2	Chapter 3
6	June 09	Leadership & Chaos Theory Strategic Planning <b>Midterm Exam</b>	HW #4 <b>(Take-Home)</b>		Chapter 13, Handout Chapter 11
7	June 14	Workforce Focus	HW #5	HW #3	Chapter 4, Handout
8	June 16	Process Focus	HW #6	HW #4	Chapter 5
9	June 21	Process Measurement Knowledge Management		HW #5	Chapter 8 Chapter 12
10	June 23	Design for Quality Quality Excellence		HW #6	Chapter 7 Chapter 14
11	June 28	<b>FINAL EXAM – GOOD LUCK!!!</b>			

**Academic Integrity:**

The Department of Industrial and Systems Engineering adheres to the University's policies and procedures governing academic integrity as described in SCampus. Students are expected to be aware of and to observe the academic integrity standards described in SCampus. Students should expect those standards to be enforced in this course.

**Accommodations for Disabilities:**

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to the instructor as early in the semester as possible. DSP is located in STU 301 and is open 8:30 am - 5:00 pm, Monday through Friday. The phone number for DSP is (213)740-0776.