

Advanced Topics in Value Creation

EMEN 5041

Course Syllabus & Tentative Content Outline

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1. Course Description

An advanced study of methods designed to maximize excellence in business performance. Includes interactions with the customers and suppliers, integrated manufacturing, and meeting customer requirements while focusing on maximizing profitability. These characteristics are addressed both strategically and tactically through the use of case analysis, field study, and experiential learning for both the production and service sectors. Prerequisite: EMEN 5040

2. Course Goals and Objectives

As a result of successfully completing this course, the student will be capable of describing contemporary models and components for developing and maintaining a high-powered organization; with the maximization of profitability in the presence of financial growth as a targeted objective. With the course content organized on the basis of current business performance excellence models, the student will be specifically capable of:

- (a) describing an integrated (with the organization's Strategic and Business Plan) model for Customer Satisfaction Improvement, designed to identify opportunities for improvement which (if achieved) constitute points of differentiation which a firm's Critical Customers are willing to pay for;
- (b) describing a cutting-edge model and statistically-based approach to the qualification and certification of suppliers associated with raw materials, consumable supplies, and/or equipment; leading to the minimum total cost (price to the door plus use) as associated with purchased goods.

- (c) describing a cutting-edge model and statistically-based approach to the qualification and optimization of new or existing equipment to maximize profitability through improved asset utilization, the reduction of the cost profile associated with the equipment or line, as well as from an improvement in the quality of products manufactured; and

In order to illustrate the nature and use of these models/approaches, the instructor will present a series of actual examples and applications drawn from contemporary business and industrial case studies. These examples are from firms such as Anheuser-Busch; the Earthgrains company; ALCOA, and ALCOA of Australia; Molex, and Molex-Singapore; the Applied Magnetics Corporation; the Inland Steel company; Ford Motor Company; Motorola (Semi-Conductor Division); First National Bank of Colorado, Sun Microsystems, Hewlett-Packard, and the Oregon Saw Chain company (Omark Industries).

3. Instructor

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4. Textbook / References

After careful review, the instructor has determined that no single text can adequately comprise a resource for **all** of the topics we will review in this course. Additionally, much of the content which will be reviewed in this course is proprietary to the instructor. As a result, the instructor will provide the students with all of the materials employed in each lecture session through the course web site.

5. Course Website

All students must register on the web at <http://ecollegedirect.college.com> for access to eCompanion (look for the *register* link). **ALL** of the lectures and materials used in this course are contained on this website; all of the communication during the semester including announcements, due dates, etc. will take place via the ECollege website utilities.

A Note on e-Mail Addresses

When you register on ECollege, you can set your e-mail address to be sent from the course website to any address you choose. I know it can be a hassle to check multiple e-mail locations on a daily / regular basis, but may I suggest that you use your CU e-mail address for this purpose (e.g. typically, firstname.lastname@colorado.edu). If you do not know your assigned CU address, contact ITS (dial 5-HELP from any on-campus phone) and they will provide it to you. The reason I mention this is because in the past, I have sent e-mails to students with attachments of interest during the conduct of the course. In some cases, where students have used their work e-mail address, the e-mail goes through but the attachment is blocked. In some rare cases, fire-walled work systems, when blocking an attachment, block the associated e-mail as well, and provide no indication to the student that anything was sent out by me and subsequently blocked. It is *your* responsibility to be cognizant of any information sent via the course website by me to you, so it might be useful to use either a CU or at least personal e-mail address that will not present this sort of possibility.

6. Course Structure / Approach

The course topic outline which follows (Table I) identifies the proposed and tentative lecture topics that will be presented throughout the semester in order to allow the student to achieve the goals and objectives of the course.

For each topic covered, it will be the student's responsibility to:

- (a) have read any assigned material identified by the instructor *before* the corresponding lecture; and
- (b) attend the lecture, and participate in classroom discussions of the material presented (on-campus students)

OR

review the lecture, and post questions associated with the content on the course website (distance students); and

Following each unit taught, each student will submit a short paper (3-4 pages) summarizing the content taught, and assessing the application of that content to their current or potential future work setting. These papers will be graded as 'Satisfactory' or 'Unsatisfactory'; and will be submitted/resubmitted until they are all assessed as 'Satisfactory'. Guidelines for these papers are available on the course website.

As a 'capstone' to the course work associated with the model for Business Performance Excellence, each student will also be expected to complete a major project associated with the content from either EMEN 5040 or EMEN 5041, specifically related to one of the following areas:

- Strategic Planning & Policy Deployment
- Total Asset Utilization / CPR Analysis
- Customer Quality Assurance
- Supplier Quality Assurance
- Statistical Start-Up (not recommended unless the student has completed EMEN 5042, 5900, and 5610)
- Daily Management
- Employee Involvement

The final grade for the course will be assigned on the basis of the following weighting:

- | | |
|------------------|----------|
| - Unit Papers | Required |
| - Course Project | 100% |

7. Lecture Topics, References, Reading Assignments, & Associated Discussion Points

Unit I – Customer Quality Assurance Systems

| Primary Lecture Topic / Estimated Time Commitment | Content Reviewed, Key Discussion Points, and Significant Case Studies | Web Site Presentations & Materials to Be Downloaded / Printed Out | Additional Web Site Presentations & Materials Available as References/Resources |
|--|--|---|---|
| <p><i>Prioritizing The Strategic Initiatives for Maximum Value-Added Benefits</i> : Understanding Customer / Consumer Requirements</p> | <p>* An Overview of a 9 Step Model for Assessing Customer Satisfaction, Product, Service, and Pricing Requirements</p> <p>* How to Integrate (Critical) Customer Requirements into Strategic & Business Plans; the Policy Deployment Process for Breakthrough Improvements</p> | <p>Primary Powerpoint Presentation: An Introduction to Customer Quality Assurance Systems</p> | <p>Inland Steel Action Report</p> <p>Assorted Inland Steel Customer Reports</p> <p>Article on the CQA Model by Dr. Jeffrey Luftig</p> <p>Sample Executive Overview on Customer Satisfaction Improvement Systems</p> |

| Primary Lecture Topic / Estimated Time Commitment | Content Reviewed, Key Discussion Points, and Significant Case Studies | Web Site Presentations & Materials to Be Downloaded / Printed Out | Additional Web Site Presentations & Materials Available as References/Resources |
|---|--|---|---|
| <p><i>Prioritizing The Strategic Initiatives for Maximum Value-Added Benefits : Understanding Customer / Consumer Requirements</i></p> <p>(continued)</p> | <p>* Case Studies</p> <ul style="list-style-type: none"> - Inland Steel Company - Molex & Molex-Singapore - ALCOA & ALCOA - Australia - Haworth - Chiquita - Qantas - Earthgrains - Anheuser-Busch | | |

Unit II – Supplier Quality Assurance Systems

| Primary Lecture Topic / Estimated Time Commitment | Content Reviewed, Key Discussion Points, and Significant Case Studies | Web Site Presentations & Materials to Be Downloaded / Printed Out | Additional Web Site Presentations & Materials Available as References/Resources |
|--|---|--|--|
| <p><i>Prioritizing The Strategic Initiatives for Maximum Value-Added Benefits : Creating a Value-Added Supplier Quality Assurance System</i></p> | <ul style="list-style-type: none"> * An Overview of a 9 Step Model for Supplier Quality Assurance * How to Qualify Critical and Significant Suppliers * Equipment Purchasing Requirements * Case Studies <ul style="list-style-type: none"> Inland Steel Company Molex & Molex-Singapore ALCOA & ALCOA - Australia Earthgrains Anheuser-Busch / A-B Companies | <ul style="list-style-type: none"> * Primary PowerPoint Presentation: An Introduction to Supplier Quality Assurance | <ul style="list-style-type: none"> * Assorted Supplier Quality Assurance Guides from Multiple Companies |

**Unit III – Daily Management & Employee Involvement: Teams
And Focused Input Systems**

| Primary Lecture Topic / Estimated Time Commitment | Content Reviewed, Key Discussion Points, and Significant Case Studies | Web Site Presentations & Materials to Be Downloaded / Printed Out | Additional Web Site Presentations & Materials Available as References/Resources |
|---|---|--|--|
| <i>Achieving the Strategic & Business Plan : The Daily Management Model (Phase III)</i> | <ul style="list-style-type: none"> * The Daily Management Model * Implementing Daily Management Systems | * Primary PowerPoint Presentation: Daily Management | Multiple References and Supporting Articles on the ECollege Website |
| <i>Achieving the Strategic & Business Plan : Employee Involvement in the BPE Model</i> | <ul style="list-style-type: none"> * Employee Focused Input Systems * Teams & Team-Building | * Primary PowerPoint Presentation: Employee Involvement | |

Unit IV – Statistical Start-Ups

| Primary Lecture Topic / Estimated Time Commitment | Content Reviewed, Key Discussion Points, and Significant Case Studies | Web Site Presentations & Materials to Be Downloaded / Printed Out | Additional Web Site Presentations & Materials Available as References/Resources | | | | | | | | | | |
|--|--|---|---|----------------------|-------|-------|------|----------------|--|-----------------------------|--|---|--|
| <p><i>Achieving the Strategic & Business Plan</i> : Statistical Start-Up™ - The Key to Equipment & Facilities Optimization Without Capital Expenditures</p> | <p>* An Overview of a Tested and Proven Model for Equipment Qualification and Process / Facility Optimization for New or Existing Production Systems</p> <p>* Examples of Improvement Efforts Focused On:</p> <ul style="list-style-type: none"> - Product Quality & Defects - Product Performance (In Subsequent Manufacture & Use) - Reliability & Maintainability (Costs) <p>drawn from:</p> <table border="0"> <tr> <td>Earthgrains Company</td> <td>Molex</td> </tr> <tr> <td>Inland Steel Company</td> <td>Alcoa</td> </tr> <tr> <td>Pirmi</td> <td>Ford</td> </tr> <tr> <td>Anheuser-Busch</td> <td></td> </tr> <tr> <td>Metal Container Corporation</td> <td></td> </tr> </table> | Earthgrains Company | Molex | Inland Steel Company | Alcoa | Pirmi | Ford | Anheuser-Busch | | Metal Container Corporation | | <p>* Primary PowerPoint Presentation: An Introduction to the Statistical Start-Up Process</p> | <p>* Background Article on Statistical Start-Ups</p> |
| Earthgrains Company | Molex | | | | | | | | | | | | |
| Inland Steel Company | Alcoa | | | | | | | | | | | | |
| Pirmi | Ford | | | | | | | | | | | | |
| Anheuser-Busch | | | | | | | | | | | | | |
| Metal Container Corporation | | | | | | | | | | | | | |

8. Additional Course Clarifications Recommended for Inclusion by the University of Colorado – Boulder and the Engineering Management Program

- a. If you qualify for accommodations because of a disability, please submit a letter to me from Disability Services in a timely manner so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303-492-8671, Willard 322, or <http://www.Colorado.EDU/disabilityservices>
- b. Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, my expectation is that each student will review the policy details http://www.colorado.edu/policies/fac_relig.html) and religious holiday calendar (<http://www.interfaithcalendar.org/>) during the first week of class, and by the end of the second week of class notify the instructor via e-mail as to what dates the student anticipates they will not be in class or have a conflict of some type, and the religious holiday they will be observing.
- c. Students and faculty each have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to behavioral standards may be subject to discipline. Faculty have the professional responsibility to treat students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which students express opinions. Policies regarding classroom behavior may be reviewed at:

<http://www.colorado.edu/policies/classbehavior.html>
- d. All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be (in this class, **will be**) reported to the Honor Code Council (honor@colorado.edu; 303-725-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Additional information on the Honor Code can be found at

<http://www.colorado.edu/policies/honor.html>

and at

<http://www.colorado.edu/academics/honorcode/>

- e. The University of Colorado Policy on Sexual Harassment applies to all students, staff and faculty. Sexual harassment is unwelcome sexual attention. It can involve intimidation, threats, coercion, or promises or create an environment that is hostile or offensive. Harassment may occur between members of the same or opposite gender and between any combination of members in the campus community: students, faculty, staff, and administrators. Harassment can occur anywhere on campus, including the classroom, the workplace, or a residence hall. Any student, staff or faculty member who believes s/he has been sexually harassed should contact the Office of Sexual Harassment (OSH) at 303-492-2127 or the Office of Judicial Affairs at 303-492-5550. Information about the OSH and the campus resources available to assist individuals who believe they have been sexually harassed can be obtained at:

<http://www.colorado.edu/sexualharassment/>

f. Appropriate Classroom Laptop Use

Although having a laptop in class opens up new learning possibilities for students, sometimes students utilize it in ways that are inappropriate. It is easy for your laptop to become a distraction to you and to those around you. Therefore, please refrain from instant messaging, e-mailing, surfing the Internet, playing games, writing papers, doing homework, etc. during class time. Acceptable uses include taking notes, following along with the instructor on PowerPoint, and other directed class activities, as well as working on assigned in-class activities, projects, and discussions that require laptop use.