

COURSE TITLE BLACKBOARD SITE	EME 6763 Quality Engineering Systems Spring 2011 – http://my.ltu.edu and select CRN 3796
INSTRUCTOR	John Shevlin Adjunct Professor, College of Management jshevlintu@fuse.net Home Phone 513-774-0453 Cell Phone: 513-259-8479 (Please no calls after 10:00pm) Office hours by appointment
SCHEDULE	On-line modules, papers and discussion threads(College of Engineering schedule). See http://www.ltu.edu/registrars_office/calendar_final_exam.index.asp for LTU academic calendar information.
LEVEL/ HOURS PREREQUISITE	Masters Degree / 3 semester credit hours Admission / prerequisite requirements
REQUIRED TEXT (See Blackboard for additional resources)	Individual Reading Assignments, Articles from ASQ and Other Quality Periodicals
ADDITIONAL RESOURCES	LTU Online student resources: http://www.ltu.edu/ltuonline/currentonline.asp
TECHNICAL SUPPORT	Technical support for using Blackboard is provided by the Help Desk, 248.204.2330 or helpdesk@ltu.edu

COURSE SCHEDULE FOR TRADITIONAL SEMESTER COURSES

This class will consist of having the students produce the documentation in the form of a series of short papers and Lean Summaries. We will hold live sessions, at a predetermined frequency (if we are able to find a mutually agreeable meeting time,) in Wimba, discussing the readings and working on the papers. It would be something like a European style tutoring session. The readings will be assigned throughout the semester by the instructor. The content of the course will be:

- Fundamentals of Quality
- Fundamentals of Statistical Studies
- Defining and Documenting a Process
- Basic Probability and Statistics
- Stabilizing and Improving a Process with Control Charts
 - Attribute Control Charts
 - Variables Control Charts
 - Out-of-Control Patterns
- Diagnosing a Process
- Process Capability and Improvement Studies
- Design of Experiments (DOE)
- Quality Assurance versus Quality Control
- Six Sigma Management

STUDENT EVALUATION

The course has 3 assignments totaling 100 points. Letter grades are awarded based on the total number of points achieved. Points are deducted for late assignments.

Assignments	Points
Individual Lean Summaries (2 @ 7.5 points each)	15
Individual Papers – 3 @ 25 points each)	75
Online Participation	10
Total Points	100

Class Points	Letter Grade
96 and above	A
90 – 95	A-
87 – 89	B+
83 – 86	B
80 – 82	B-
77 – 79	C+
73 – 76	C
70 – 72	C-
61 – 70	D (Undergrad Only)
60 and below	E



Note: Grades lower than a "B" fall below the LTU graduate standard

STUDENT LEARNING OBJECTIVES / OUTCOMES

Quality Engineering Systems is a study of current topics in quality management techniques to include total quality management, statistical quality control, statistical process control, quality circles, and Deming's methods. Emphasis will be placed on the systems approach to quality management.

The class is broken up into four (4) distinct sections. Those sections are:

- Section 1: Foundations of Quality Management
- Section 2: Tools and Methods of Analytic Studies
- Section 3: Administrative Systems for Quality Management
- Section 4: Current Thinking about Statistical Practice

PREREQUISITE SKILLS

PowerPoint, Word, Excel (Potentially), Understand and interpret graphs.

INSTRUCTIONAL METHODS AND COURSE ORGANIZATION

A variety of instructional methodologies are used in this course. List the specific methods used in your course, which may include but are not limited to:

Blackboard learning environment – Blackboard at my.ltu.edu contains the syllabus, all assignments, reading materials, streaming videos, narrated Powerpoint mini-lectures, podcasts, written lecture notes, chapter quizzes, links to Web resources, and discussion forums. You will submit all assignments via Blackboard, and are expected to participate regularly in discussion topics. Please take time to familiarize yourself with the organization of the Blackboard site. You will want to check the site frequently for announcements reminding you of new resources and upcoming assignments.

Student/Instructor Conversations – Students keep in touch with the instructor via e-mail messages, telephone conference calls, and IM conversations.

CLASS POLICIES AND EXPECTATIONS

I plan to offer you a valuable learning experience, and expect us to work together to achieve this goal. Here are some general expectations regarding this course:

Each student has a LTU e-mail account. If you wish to use a different e-mail address for this course, please **change your e-mail address in Blackboard under “Student Tools”** and send an e-mail to <mailto:jshevlintu@fuse.net> so I can store your address in my e-mail directory.

Readings, discussion forum participation, and written assignments must be completed according to the class schedule. If business travel will take you away from regular participation, please clear these dates with me in advance.

It is essential that all students actively contribute to the course objectives through their experiences and working knowledge of business and quality.

All assignments must be submitted on schedule, via the Digital Dropbox found in Blackboard, and using Microsoft Office-compatible software. If you need to submit an assignment via e-mail, contact the instructor in advance. Late work will be reduced in value.

Assignments must be completed to an adequate standard to obtain a passing grade. Requirements for each assignment are detailed in this syllabus and on the LTU Online web site.

Be prepared to log into Blackboard at least once each day. Please focus your on-line correspondence within the appropriate Blackboard discussion forums so that your colleagues can learn from you. At the end of the course, you will be invited to participate in a University evaluation of this course. Your feedback is important to the University, to LTU Online, and to me as an instructor, and I encourage you to participate in the evaluation process.

It is important for you as students to know what to expect from me as your instructor:

- I will be available to you via e-mail and phone, and will promptly reply to your messages.
- I will be available to you for face-to-face appointments as requested.
- I will maintain the Blackboard web site with current materials, and will resolve any content-related problems promptly as they are reported to me.
- I will send out a weekly e-mail update to all class members to guide upcoming work and remind you of assignment due dates.
- I will return all assignments to you promptly, and will include individualized comments and suggestions with each assignment.
- I will hold our personal written or verbal communications in confidence. I will not post any of your assignments for viewing by the class without requesting your approval in advance.
- I will treat all members of the class fairly, and will do my best to accommodate individual learning styles and special needs.
- I expect you to inform me of any scheduling conflicts that arise that will impact your ability to maintain the course schedule.
- I expect you to work in groups effectively and treat your group members with the a high degree of respect and understanding.
- I travel frequently for work and therefore I will post my schedule as it develops during the semester. This is for your awareness as to my availability and potential choice of communication (phone call versus e-mail) for the time zone I will be in.

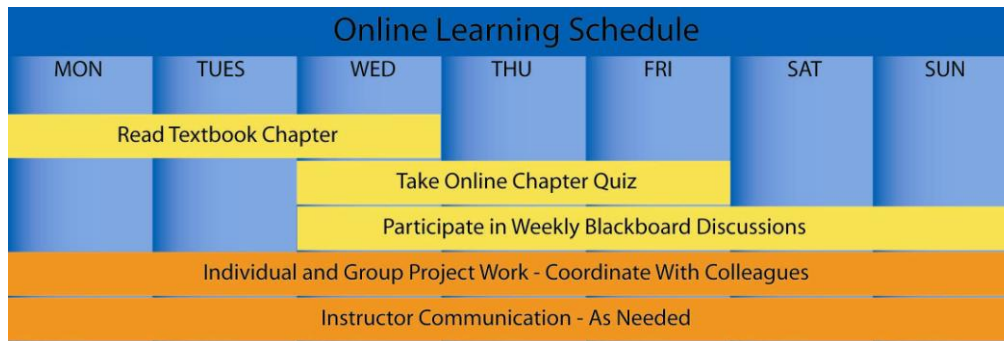
If any of these points need clarification, or when special circumstances arise that require my assistance, please contact me so that we can discuss the matter personally.

PRACTICAL GUIDELINES FOR CLASS LOAD EXPECTATIONS

A three-credit course generally requires at least nine hours per week of time commitment. Here are some practical guidelines to help schedule your time commitments for this online course:

- A 14-week semester (the Summer semester is compressed into 10 weeks) would require at least 126 hours of time commitment to successfully complete all readings, activities, assignments, and texts as described in this syllabus.
- You should reserve at least 6 hours per week to read the required textbook chapters and resources, participate in online discussions, review presentation materials, and work through online quizzes. This effort will total at least 84 hours over the course of the semester.
- You should organize your remaining time to roughly correspond with the point value of each major assignment. This means that you should plan to spend at least:
 - 8-9 hours preparing your case study review;
 - 24-40 hours working with your group on the three parts of your semester-long project;
 - 8-9 hours working on the various components of your reflective consolidation (final exam).

These guidelines may not reflect the actual amount of outside time that you – as a unique individual with your own learning style – will need to complete the course requirements. The number of hours each week will vary based on assignment due dates, so please plan ahead to insure that you schedule your academic, work, and personal time effectively. The following graphic can be used to guide you in planning your weekly course work to remain on schedule:



ASSIGNMENT DETAILS

Course assignments and evaluation criteria are detailed below. Please review these requirements carefully. See the section Academic Resources / Assessment Guidelines for information about assessment of written and oral presentations.

Details for all assignments are shown below. All assignments are submitted using the Blackboard “Digital Dropbox” function.

Individual Lean Summaries (15 Points – 7.5 points each)

One page individual “lean” summary for 2 of the topics of your choosing found below:

- Defining and Documenting Process
- Design of Experiments (DOE)
- Control Charts (Attribute or Variable)
- Process Capability
- Six Sigma
- LeanSigma

Individual summaries are due at the conclusion of the appropriate chapter. The idea of a Lean Summary is a 1-page visual document that can be used as a “memory jogger” at the completion of this course. See my example on Black Board of a “Lean Summary” of this course. Other student examples will also be posted.

Reminders for each of the two (2) Lean Summaries will be posted as we move through the semester. The summaries will be spread through-out the entire semester along with the other assignments.

Individual Papers (75 points – 25 points each)

Each individual should write a short paper (no more than 10 pages in length, double spaced) on a topic such as “Use of Statistical Tools, Application of Quality Engineering or Quality Management System.” The main focus of the paper being from your research that must be agreed upon by the student and instructor. You must refer to **at least three credible sources** and specify them on the list of your references; *Internet sources are only acceptable if they are credible. If you have questions, please ask.*

Your critique, original thoughts and application - 15 points
Use of either a “lessons learned” or “best practices” approach – 4 points
Overall critical thinking and writing quality – 5 points
Use of APA citation formatting – 1 point

Topics for each of the three (3) papers will be assigned as we move through the semester. The paper’s will be spread through-out the entire semester along with the other assignments.

Online Participation (10 points)

Students often bring valuable experience, and learning through lively online discussions is encouraged. Discussion will be conducted through the Blackboard system in the “Discussion Board” area of BlackBoard. Written responses are expected to be of high quality, challenge each other’s thoughts and build upon or offer a differing viewpoint. A simple “Yes, No, I agree, etc.” is considered to be non-value added and unacceptable.

Up to 10 points – Actively participating in Blackboard discussion forums, responding to questions posted by the instructor, and interacting positively with other students.



SYLLABUS ADDENDA

Please see the LTU Online “Current Students” web site <http://www.ltu.edu/ltuonline/currentonline.asp> for comprehensive information about Lawrence Tech’s academic services, library services, student services, and academic integrity standards. The content of this web site is explicitly included as syllabus requirements.

The LTU Online “Current Students” web site also includes grading rubrics used by your instructor to evaluate written assignments, discussion forum participation, and group assignments. Please note that the SafeAssign anti-plagiarism product will be used for written assignments submitted for this course. Please see the instructions included on the LTU Online web site regarding the use of the SafeAssign product.