MSE504 - Engineering Management
Summer 2016, Ticket 10239, Wednesday 6:30-9:40 p.m., Room: JD-3510

Instructor  
Ghassan “Gus” H. Elias
- BS & MS, Industrial/Manufacturing Systems Engineering

- Faculty Email Address: Gus.Elias@csun.edu , Website: http://www.csun.edu/~ghe59995/
- Faculty Office: JD-3308
- Office hours: Tuesday 6:00 p.m. – 6:50 p.m. and by appointment
- MSEM Department Office: JD-4510; (818) 677-2167; email: msem@csun.edu

Text Book  


Catalog  
Prerequisite: Consent of instructor. An introduction to management of engineering and technology. Principles and applications to effectively manage technical projects, people, budgets and schedules. Organizing and motivating people, and controlling activities. Managing research, development, design and production activities. Directing projects, improving quality, and engineering ethics.

Description  
COURSE OBJECTIVES

This course will contribute to your:

· knowledge of engineering and technology management concepts and tools, particularly as they pertain to issues of engineering planning, strategy, and control

· ability to facilitate the implementation of solutions to engineering problems

· ability to design and implement the complex human systems and processes essential to meeting engineering objectives

· ability to lead and function effectively on multidisciplinary and multicultural teams

· understanding of engineering professional and ethical responsibilities

· ability to communicate effectively, both orally and in writing

· knowledge of contemporary issues / ability to understand the global/societal context of engineering

· recognition of the need for, and the ability to engage in, independent learning

· ability to use word processing and to conduct literature and web searches
STANDARD OPERATING PROCEDURES

1. Class members are expected to maintain personal and professional standards consistent with the Code of Ethics of the national Society of Professional Engineers, the Preamble and Fundamental Canons of which are as follows:

   Engineering is an important and learned profession. As members of this profession, engineers are expected to exhibit the highest standards of honesty and integrity. Engineering has a direct and vital impact on the quality of life for all people. Accordingly, the services provided by engineers require honesty, impartiality, fairness and equity, and must be dedicated to the protection of the public health, safety, and welfare. Engineers must perform under a standard of professional behavior that requires adherence to the highest principles of ethical conduct. Engineers, in the fulfillment of their professional duties, shall:

   - Hold paramount the safety, health and welfare of the public.
   - Perform services only in areas of their competence.
   - Issue public statements only in an objective and truthful manner.
   - Act for each employer or client as faithful agents or trustees.
   - Avoid deceptive acts.
   - Conduct themselves honorably, responsibly, ethically, and lawfully so as to enhance the honor, reputation, and usefulness of the profession.

2. Students must take ORIGINAL NOTES and submit ONLY ORIGINAL WORK. Notes from previous semesters taken by others are NOT allowed.

3. Class members are expected to attend ALL class sessions, promptly & entirely.

4. Class members are responsible for the course material, reading assignments, class presentations, discussions, and practice problems.

5. Tardy/Late submissions are unacceptable….NO EXCEPTIONS!

6. Class members will always be considerate & respectful to their colleagues.

7. Pagers, Cellular Phones, Alarms, etc…MUST BE TURNED OFF during class.

8. IMPORTANT NOTICE: Using PC Laptops (unless authorized), cameras and/or mobile phones during the midterm and/or final exams is prohibited. Violation of this rule will result in issuance of an “F” grade for the course. NO EXCEPTIONS!
COURSE PLAN

(Tentative guidelines -- may change if deemed necessary)

This is a hybrid class (OH) whereby six (6) class meetings on campus shall be conducted on-campus to attend review lectures, solve problems and take the midterm and final exams.

The subject material will be covered mostly online via MOODLE.

Note: Weekly group homework assignments will be given in class. Also, special research projects will be given as a group assignment.

Meeting dates: Will be confirmed in class!

Online Class .......... 05/31/2016 - 08/23/2016 (Throughout the summer semester)


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<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Task</th>
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<tr>
<td>1.</td>
<td>Welcome! – Class Outline &amp; Syllabus Overview</td>
<td>Groups: Purpose &amp; Formation</td>
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<tr>
<td></td>
<td>- Introduction to Engineering Management</td>
<td>Lecture: Chapters 1</td>
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<td>- Historical Development Of Engineering Management</td>
<td>Lecture: Chapters 2</td>
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<td>2.</td>
<td>Managerial Functions:</td>
<td>Syllabus Revisited – Group Confirmation</td>
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<td>- Leading Technical People</td>
<td>Lecture: Chapter 3</td>
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<td>3.</td>
<td>Managerial Functions:</td>
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<td>- Planning &amp; Forecasting</td>
<td>Lecture: Chapter 4</td>
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<td>4.</td>
<td>Managerial Functions:</td>
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<td></td>
<td>- Decision-Making</td>
<td>Lecture: Chapter 5</td>
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<td>- Organizing</td>
<td>Lecture: Chapter 6</td>
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<td>5.</td>
<td>Managerial Functions:</td>
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<td>- Some Human Aspects of Organizing</td>
<td>Lecture: Chapter 7</td>
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<td>6.</td>
<td>Managerial Functions:</td>
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<td>- Controlling</td>
<td>Lecture: Chapter 8</td>
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<td>7.</td>
<td>MIDTERM Exam (35%)</td>
<td>Chapters 1 through 8</td>
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<td>Full session.</td>
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<td>8.</td>
<td>Midterm graded, returned and solution reviewed</td>
<td>Managing Technology:</td>
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<td>- Managing Research &amp; Development (R&amp;D)</td>
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<td>Lecture: Chapter 9</td>
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<td>9.</td>
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<td>- Managing Engineering Design</td>
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<td>Lecture: Chapter 10</td>
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<td>- Planning Production Activity</td>
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<td>Lecture: Chapter 11</td>
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<td>10.</td>
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<td>- Managing Production Operations</td>
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<td>Lecture: Chapter 12</td>
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<td>11.</td>
<td>Managing Projects:</td>
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<td>- Project Planning &amp; Acquisition</td>
<td>Lecture: Chapter 14</td>
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<td>- Project Organization, Leadership &amp; Control</td>
<td>Lecture: Chapter 15</td>
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<td>12.</td>
<td>Final Exam Wrap-up &amp; Review</td>
<td>Course Wrap-up &amp; Review</td>
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COURSE EVALUATION

Attendance/class & online participation are a MUST!

20 points  Homework & Special Research Assignments
Late submittals will NOT be accepted. NO EXCEPTIONS!

35 points  Midterm Exam – Chapters 1 through 8, class lectures & discussion,
homework & reading assignments.

Format: True/False, Multiple Choice, Essay Questions, Analytical Problems.

"May be" Open Book & Open Notes or Closed Book/Closed Notes:

ONLY ORIGINAL WORK/NOTES ARE ALLOWED & EXPECTED!

45 points  Final Exam – Comprehensive (all of the discussed material in the semester)
Format: True/False, Multiple Choice, Essay Questions, Analytical Problems.

"May be" Open Book & Open Notes or Closed Book/Closed Notes:

ONLY ORIGINAL WORK/NOTES ARE ALLOWED & EXPECTED!

Letter Grade Scale:
(Refer to the next page for more information on grading)

A ≥ 92  89 ≤ A- < 92  85 ≤ B+ < 89
80 ≤ B < 85  78 ≤ B- < 80  75 ≤ C+ < 78
70 ≤ C < 75  60 ≤ D < 70  F < 60

This syllabus is your course contract with the instructor, and the MSEM department. All students must fully adhere to the stated terms and guidelines. ************
For Your Information

• 'A' grade range (A to A-) is reserved for work that is exceptional. This means that it (1) is professional and reflects the writer's/s' careful consideration of audience and purpose; (2) shows perfect to near-perfect understanding of the necessary concepts and analytical tasks; (3) where appropriate, it shows the capacity to think creatively or to see implications beyond the immediate scope of the question; (4) contains all necessary information (invention); (5) is arranged in a logical manner (6), is memorable; (7) delivery is visually appealing; and (7) is free of mechanical errors and is formatted as specified. Work must be flawless to attain an A/A-. Work with minor flaws that is nonetheless excellent in other ways will earn an A-.

• A grade in the B range means that the work is acceptable at the graduate level (B- range) to very good (B/B+). This work satisfies all (B+) or most (B/B-) of the requirements of the question/research task, shows the capability to think beyond the task by relating it to other areas of knowledge in or outside of the course; is neatly presented and shows above-average use of academic English. If the work is decently written, is formatted basically correctly, and covers most of the required content, but has several minor flaws or one major flaw, the grade will be B-.

• A grade in the C range means that the work, while covering much of the required ground, does not show graduate-level analytic and expressive ability. That is, major and minor items may be missing or incorrect; and while the language may communicate most points adequately, it does not qualify as above-average academic work.

• A grade in the D range shows that the work does not, overall, achieve an acceptable level of coverage of the requirements AND/OR the language is insufficient to make the writer's points understandable to the reader. The content may be either incorrect to an unacceptable degree, or very incomplete.

• A grade of F indicates that so little of the required content is covered that grading the paper is an exercise in futility. It may mean that very major points have clearly not been grasped or have been misunderstood by the student. An F may also indicate that the ideas are expressed in such a way that they are not at all understandable to the reader. A grade of F is also awarded when assigned work is not handed in, or not handed in by the set deadline.
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<tr>
<th>Score</th>
<th>Description</th>
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<tr>
<td>6</td>
<td>Excellent (4)</td>
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<td>5</td>
<td>Good (3)</td>
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<td>4</td>
<td>Adequate (2)</td>
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<td>3</td>
<td>Average (1)</td>
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<tr>
<td>2</td>
<td>Weak (1)</td>
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**Oral Presentations Scoring Rubric**

**Presentation:**
- The presentation is clear and easy to follow.
- The presenter is well prepared and knowledgeable.
- The presenter is well organized and has a clear outline.
- The presentation is engaging and interesting.
- The use of visuals is appropriate and effective.

**Organization and Structure:**
- The presentation is well-organized and has a clear structure.
- The presentation is well-structured and flows smoothly.
- The presentation is clear and easy to understand.
- The presentation is well-supported by evidence and examples.

**Analysis and Discussion:**
- The presentation is well-supported by evidence and examples.
- The presentation is well-organized and has a clear structure.
- The presentation is clear and easy to understand.
- The presentation is well-supported by evidence and examples.

**Response to Audience:**
- The presenter is well-prepared and knowledgeable.
- The presenter is well-organized and has a clear outline.
- The presenter is well-organized and has a clear outline.
- The presenter is well-organized and has a clear outline.

**Style and Form:**
- The presentation is well-organized and has a clear structure.
- The presentation is well-organized and has a clear structure.
- The presentation is well-organized and has a clear structure.
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**Professional Speaking:**
- The presentation is well-organized and has a clear structure.
- The presentation is well-organized and has a clear structure.
- The presentation is well-organized and has a clear structure.
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**Presentation Preparation:**
- The presentation is well-organized and has a clear structure.
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