EIND 300 – Engineering Management and Ethics

Instructor: William Schell, PhD, PE

Office Hours: Roberts Hall 403, MW 9:30 – 10:30, W 15:00 – 16:00 and by appointment / drop in.
Contact: wschell@ie.montana.edu, 406.994.5938 (office) 406.224.0857 (cell / text)

General Course Information
Website: http://www.coe.montana.edu/ie/faculty/schell/teaching/eind300/
Meeting Time: TR 13:40 – 14:55 (2 credit lecture, 1 recitation – student led discussions)
Meeting Location: Wilson 1-119
Description: Introduction to management and organizational theory with applications to the engineering profession. Design of contemporary organizational systems and influence on effective organizational behavior. Social responsibility and ethical decision making for managers and engineers. Cases used to illustrate contemporary problems and environments.

Required Texts:

Additional readings from other sources will regularly be assigned through D2L.

Etiquette and Attendance: All members of the class are expected to conduct themselves professionally at all times. Key components of professional behavior include arriving on time, engaging in course discussions, and not adding distractions to class. Class attendance is not mandatory, however attendance and participation play an important role in your overall course grade. Class members are expected to be present when attending and are expected to know all course materials regardless of attendance. MSU Student Conduct Guidelines can be found at www2.montana.edu/policy/studentconduct

Learning Objectives: Upon completion of this course, students will be able to:

- Summarize the role of managers in organizations.
- Interpret and apply management theory to the engineering context.
- Illustrate the implications of organizational structures within an engineering function.
- Apply social responsibility and ethical frameworks to engineering decision making.
- Summarize the fundamentals of leadership within the role of the engineering manager.
- Explain the importance of career management and design a plan for lifelong learning.
- Determine the impact of managers in a global, economic, environmental, and societal context.
- Effectively apply the course concepts in oral and written communications.
Related ABET Educational Outcomes: The course is expected to have a significant positive impact on the following:

- Outcome d: "an ability to function on multi-disciplinary teams"
- Outcome f: "an understanding of professional and ethical responsibility"
- Outcome g: "an ability to communicate effectively"
- Outcome h: "the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context"
- Outcome i: "a recognition of the need for, and an ability to engage in life-long learning"
- Outcome j: "a knowledge of contemporary issues"

Grading and Evaluation

Grading Scale: Grades will be earned based on performance against the following cut offs:

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<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>92</td>
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<tr>
<td>A-</td>
<td>90</td>
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<tr>
<td>B+</td>
<td>88</td>
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<tr>
<td>B</td>
<td>82</td>
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<tr>
<td>B-</td>
<td>80</td>
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<tr>
<td>C+</td>
<td>78</td>
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<tr>
<td>C</td>
<td>72</td>
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<tr>
<td>C-</td>
<td>70</td>
</tr>
<tr>
<td>D+</td>
<td>68</td>
</tr>
<tr>
<td>D</td>
<td>60</td>
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<td>F</td>
<td>Below 60</td>
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Graded Assignments: The final course grade will be earned through performance on the following set of assignments:

- Recitation Participation and Homework (15%)
- Written Case Study | Research Reports (40%) – two papers, 20% each
- Written ‘Mini Papers’ (15%) – three papers, 5% each
- Exams (30%) - two 75 minute exams, 15% each

Note - The grading scale presented above represents the guaranteed grade a student will earn if these performance levels are met. Final grades may be curved, or additional opportunities to earn course points presented, if determined necessary by the instructor.

Recitation Participation and Homework: An important component of this course is developing student’s ability to communicate effectively in discussions and debates in a variety of formats (online, classroom, and small group). The grade earned in recitation discussions and homework will generally be graded as Exceeds Expectations (+), Meets Expectations (✓), or Below Expectations (-). Students will receive formal feedback on electronic discussions and several live discussions throughout the semester. Students who consistently exceed expectations will earn a course grade above the scores earned on their individual assignments, while students who consistently earn below expectations marks will earn a course grade below the scores earned on individual assignments.

Late Assignments: Assignments are due at the beginning of the class period. Late assignments will be accepted up until the next class period begins, but will be penalized 20%. Exams must be taken during the scheduled time period. Make up exams are allowed only for unanticipated and approved absences.

Grade Corrections: Adjustments will be made to the score of a graded assignment only when a grading error has been made. If the student believes an error was made in grading, the written request for correction must be made within 24 hours of when the assignment was returned to the student and include the original graded material.

Course Communications

The course listserv will be utilized for any reminders, and / or to draw student’s attention to any new materials (e.g. corrections) published to the course website or Desire2Learn. Desire2Learn will be utilized for electronic discussions and to post any reading materials or other assignments. As noted above, the instructor is available outside of office hours.