**Course Description:** The purpose of the course is to explore the basic concepts of finance, accounting, and economics as they relate to engineering decision-making. The course covers cost concepts, financial statements, and the company economic environment. Other topics include analysis of time value of money, comparison of project alternatives before and after taxes, cash flows, and replacement analysis.

**Learning Objectives:**

1) Recommend how a typical engineering project idea can evolve into a business

2) Learn the role of engineers in business

3) Work in a team to prepare a written proposal regarding a case study of engineering economic decisions

4) Give a team presentation about a case study of engineering economic alternatives

5) Generate an Excel financial model that incorporates an Income Statement, Balance Sheet, and Cash Flow Statement

6) Construct the relationship between an Income Statement, Balance Sheet, and Cash Flow Statement

7) Forecast and budget to build a viable financial model

8) Use financial equations to compare and make financial decisions

**Course Instructor:** Seth Murray

- **Office:** ECOT #526
- **Phone:** (303) 492-4165
- **E-Mail:** seth.murray@colorado.edu
- **Office Hours:** By appointment

**Course Media:** Engineering Economy, 16th Edition, by Sullivan, Wicks, and Koelling


Make sure to get the package with the MyEngineeringLab Access Code.

**Course Requirements:**

- The class will use Design to Learn (D2L) for grades, online quizzes, assignment submissions, and downloads.
- Students are expected to attend all lectures with a CU Clicker. Classes are held Tuesdays from 5:00-7:30 p.m. in FLMG 104.
By 23:59, MDT, 8 September 2014, take the Honor Code Quiz or you will be dropped from the course. The Engineering Management Program (EMP) faculty have established a policy whereby all students enrolled in an EMP course must, at the beginning of each semester, take and pass a basic quiz about the CU Honor Code. Each student must take the quiz only once each semester, regardless of how many EMP courses they are taking in the department.

<table>
<thead>
<tr>
<th>Course Grading:</th>
<th>Projects: Accounting and Financial Modeling</th>
<th>40%</th>
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<tbody>
<tr>
<td></td>
<td>Notebook</td>
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<td></td>
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<td></td>
<td>Group Presentation</td>
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<td>Total Grade</td>
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* There will be not be a final exam.

PROGRAM & UNIVERSITY PROVISIONS AND REQUIREMENTS

1. Positive Learning Environment

The University of Colorado Boulder (CU-Boulder) is committed to maintaining a positive learning, working, and living environment. The University of Colorado does not discriminate on the basis of race, color, national origin, sex, age, disability, creed, religion, sexual orientation, or veteran status in admission and access to, and treatment and employment in, its educational programs and activities. (Regent Law, Article 10, amended 11/8/2001). CU-Boulder will not tolerate acts of discrimination or harassment based upon Protected Classes or related retaliation against or by any employee or student. For purposes of this CU-Boulder policy, "Protected Classes" refers to race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, or veteran status. Individuals who believe they have been discriminated against should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Student Conduct (OSC) at 303-492-5550. Information about the ODH, the above referenced policies, and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at [http://hr.colorado.edu/dh/](http://hr.colorado.edu/dh/)

Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, color, culture, religion, creed, politics, veteran’s status, sexual orientation, gender, gender identity and gender expression, age, disability, and nationalities. Class rosters are provided to the instructor with the student’s legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. See policies at [http://www.colorado.edu/policies/classbehavior.html](http://www.colorado.edu/policies/classbehavior.html) and at [http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code](http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code)

2. Academic Integrity, Plagiarism, and the EMP Honor Code Quiz

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
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academic misconduct shall 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). Information on the CU Honor Code can be found at http://www.colorado.edu/policies/honor.html and at http://honorcode.colorado.edu.

The faculty of the Engineering Management Program (EMP) believe that a culture of integrity is essential to both the long-term, personal success of our students and to the economies and countries in which they live and work. Therefore, EMP has created an Honor Code Violation Policy that specifies a program-specific, academic consequence for a second violation of the CU Honor Code:

EMP HONOR CODE VIOLATION POLICY

Any and all violations of the CU Honor Code in EMP classes will be reported to the Honor Code Council. As per CU’s policy, the faculty member will determine the academic sanction for an offense. The CU Honor Code Council will determine any additional, non-academic sanctions. This portion of EMP’s policy is a restatement of the Honor Code policy approved by the CU Board of Regents.

A second violation of the CU Honor Code by any Engineering Management graduate student will result in the academic sanction of dismissal from the Engineering Management graduate program. The development of the Internet has provided students with historically unparalleled opportunities for conducting research swiftly and comprehensively. The availability of these materials does not, however, release the student from citing sources where appropriate; or applying standard rules associated with avoiding plagiarism. Specifically, the instructor will be expecting to review papers written by students drawing ideas and information from various sources (cited appropriately), presented generally in the student's words after careful analysis, synthesis, and evaluation. An assembly of huge blocks of other individuals' existing material, even when cited, does not constitute an appropriate representation of this expectation. Uncited, plagiarized material shall be treated as academically dishonest. If the student is confused as to what constitutes plagiarism, s/he should review the CU Honor Code on this topic, and refer to the following excellent resources: http://www.northwestern.edu/uacc/plagiar.html and http://owl.english.purdue.edu/owl/printable/589/

Students agree that by taking this course all required papers may, at the discretion of the instructor, be subject to submission for a Textual Similarity Review to Turnitin.com for the detection of plagiarism. All submitted papers will be added as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers in the future.

Finally, the Engineering Management Program faculty have established a policy whereby all students enrolled in an EMP course must, at the beginning of each semester, take and pass a basic quiz about the CU Honor Code. Each student must take the quiz once each semester, regardless of how many courses they are taking in the department. You must receive 100% on the quiz in order to pass the exam. The instructions and quiz will be made available on D2L when the student enrolls for any EMEN course or any course cross-listed, co-listed or co-located with an EMEN course.

3. Disability Services

If you qualify for accommodations because of a disability, please submit to your professor a letter from Disability Services in a timely manner (for exam accommodations provide your letter at least one week prior to the exam) so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities. Contact Disability Services at 303-492-8671 or by
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e-mail at dsinfo@colorado.edu. If you have a temporary medical condition or injury, see Temporary Medical Conditions: Injuries, Surgeries, and Illnesses guidelines under Quick Links at Disability Services website and discuss your needs with your professor.
If you have a temporary medical condition or injury, see Temporary Injuries under Quick Links at Disability Services website and discuss your needs with your professor.
4. Religious Observances
Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or class attendance. Students for whom religious observances conflict with class schedules should contact the instructor no later than two weeks before the potential conflict to request special accommodations. See full details at http://www.colorado.edu/policies/fac_relig.html.
5. Class Attendance for On-Campus Students

Unfortunately, some on-campus students have used the availability of the lecture videos to stop attending classes, and rely instead on the videos to learn the material. In the opinion of the faculty, this choice often results in a significant reduction in the quality of the educational experience for both on-campus and distance students; therefore, EMP has established the following policy for all on-campus students registering for an EMEN course:

Class attendance for all on-campus students is expected and required. Unexcused absences may incur a penalty against the student’s final grade.
6. Access to Recorded Course Lectures

The lecture videos are available for streaming and downloading via Desire2Learn (D2L) by all students registered for their respective EMEN course; whether they are on-campus or distance students. This improves the quality of the educational experience for all students, enabling any student to review each lecture as many times as needed to master the material. If you have difficulties accessing the video, FIRST check Technical Help / FAQ at: https://cuengineeringonline.colorado.edu/distance-delivery/technical-help-faq. If you are still experiencing difficulties, please contact: caete@colorado.edu.
7. E-mail Account
You are expected to use your CU student e-mail account. All of your e-mail from professors and the university will be sent to your CU e-mail account. You can choose to redirect your CU email to an alternate (work/personal) email account. For assistance in activating your email account and forwarding email, contact the Help Desk at 303-735-HELP or Help@colorado.edu.
8. Recording of EMP classes

Please note that students attending EMP classes live, whether on-campus or via teleconferencing, may be recorded.
9. Proper Use of Copyrighted Materials
The Engineering Management Program (EMP) has a large distance learning population and, as such, many copyrighted materials are offered electronically to students. EMP has the responsibility to comply with the copyright law regulating distance education for a non-profit, state institution, i.e., the Technology, Education and Copyright Harmonization (TEACH) Act of 2002. It’s the student’s responsibility to comply with U.S. copyright law with respect to the use and sharing of the electronic materials (this includes the videos of class lectures) provided within the program.
10. Appropriate Classroom Use of Laptops
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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.