

ISE 566
FINANCIAL ACCOUNTING AND ANALYSIS FOR ENGINEERS
SUMMER 2014

Instructor: Dana Sherman, Esq. (BA, JD, MBA, MBT, MPA)
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Time: Tuesday and Thursday 6:00 to 9:10 p.m. (one 10 minute break)

Dates: May 22 to July 01 (six week session-12 class meetings)

Section: 31566D (on campus) and 31766D (DEN)

Location: OHE 136

Office hours: My office is in OHE 530G. You can see me before (about 5:00 p.m.) or after class (until 10:00 p.m.) on either Tuesday or Thursday (LET ME KNOW in advance) or telephone me anytime (my office phone is forwarded if I'm not there). Email is very good as I often work late in the evening and weekends. I am otherwise not usually on campus during the summer.

If you send an email, please be relatively specific. In the subject please put ISE 566, if you are a DEN student or not, and a subject line. If you have a question about a problem describe the problem, not just a problem number.

Prerequisites: Graduate standing or instructor's permission; no prerequisites.

Text: Primary *Managerial Accounting* by Garrison, Noreen and Brewer
14th Edition. Other Editions and the International Edition are NOT acceptable. Each student must have their own textbook- is no sharing.

Extra Credit: *Ascent of Money* by Niall Ferguson

Get the latest paperback edition from Amazon (about \$6.00)

In addition, there will be substantial professor prepared materials to augment the textbook. These will be posted on Blackboard and distributed in class.

Course Assistant: [TBD](#)

If you have any questions or problems with regard to quiz postings or homework postings or due dates or the readings or course administration, you should ask the assistant. *The course assistant is responsible for course administration* and can probably answer these questions better than I can. Be patient. If you are having trouble with DEN or with Blackboard, you should contact DEN support. (I would like to help you, but there is a reason I became an attorney)

Course Objectives:

The course is intended to provide students in engineering and related disciplines with the information and skills necessary to engage in financial decision making at both an operational level and a business enterprise level. Topics which will be covered include concepts from law, finance, cost accounting, and managerial accounting. The specific course objectives include enabling each student to:

- Identify, formulate and solve financial issues in engineering
- Be able to understand financial reports and reporting systems
- Understand the legal context in which financial decisions are made
- Understand process cost determination and allocations
- Have knowledge of contemporary business issues
- Participate effectively on multi-disciplinary teams
- Understand professional ethical issues and responsibilities

Course Expectations:

This is a VERY demanding course, especially in a condensed 6 week session as exactly the same amount of material will be covered as in the regular spring semester course. There will be about 50 pages of reading, a homework assignment AND a quiz almost every class session. You are also required to read *Ascent of Money*. Be prepared to devote the time necessary to take the course. DEN students, do not consider taking another course. For on-campus students, two summer courses in one session will be enough. The course material is cumulative. If you consistently fail to turn in homework on time, your point total (and hence your grade) will suffer. If you do not have the time this summer, the course will next be offered during the Spring 2015.

Method of Instruction:

Lecture, class discussion and review of quizzes and homework assignments conducted by the instructor will occupy the class period. **If you are not a DEN student, you are expected to attend each class session throughout the period.** The class is intended to be practical in its approach. Students who are employed are STRONGLY encouraged to bring to the attention of the instructor procedures, problems or issues which the students deal with on a daily basis. There is no separate problem session or discussion section. The discussion board will also be activated so students can help each other.

NOTE: Pre-lectures have been recorded for the first portion of the course, and I hope to record pre-lectures for the remaining portion of the course. **YOU ARE EXPECTED TO HAVE VIEWED THE PRE-LECTURE AND COMPLETED THE ASSIGNED READING FOR THAT NIGHT PRIOR TO COMING TO CLASS AND FOR THE DEN STUDENTS PRIOR TO THE CLASS SESSION.**

Grading:

Homework	20%
Quizzes	20%
Final	60% (cumulative)
Total	100%

NOTE: Blackboard scores will be UN-WEIGHTED. Points will be weighted at the end of the course. It will give you information regarding how you did relative to the other students on each quiz/assignment, but not necessarily reflect your overall class standing. Final course grades are largely dependent upon the final exam, but if you fail to timely submit homework and quizzes, your grade will certainly suffer.

The DEN students and the in-class students will be given exactly the same quizzes, assignments and exams. There is no “forced curve” and final grades will be based upon both your personal comprehension of the material as well as your performance on the exams and assignments relative to the other students. There is no forced curve but the quality of your fellow classmates is expected to be quite high and the learning expectations of the instructor are established accordingly.

There is a small possibility for extra credit assignments during the summer. If an extra credit opportunity is given, it is really extra credit and points are added after the final course points have been allocated. The maximum extra credit opportunity will be 5% of the total points. DEN students may not be able to attend the extra credit opportunities due to the location and will not be penalized in any way.

Cooperative learning is encouraged on homework assignments. Thus, it is to your benefit to help each other as much as possible. Scores will be posted on DEN and will be sent on a frequent basis by the course assistant. You are also encouraged to contact the instructor at any time if you are having problems completing the assignments or understanding the material.

While cooperative learning is encouraged, **plagiarism or the copying of the work of another student is not allowed**. For example, two students may not submit identical papers with different names and argue that they “worked together” on the assignment. If this occurs, the grade for a particular assignment will be negative the number of possible points for that assignment. University policy is that students who engage in inappropriate activity should be reported to student affairs for disciplinary action.

Assignments:

There will be homework due most class sessions. Homework assignments are due at the start of each class. If you expect to miss class, you can fax or email your assignment to the course assistant. Late assignments are accepted up to one week late with a penalty of 50% of the actual score only if the answers have not been discussed in class. Put your name on your homework assignment and your student number. Use your USC registered name, not some nickname. You should turn in the original assignment but retain a copy for yourself to have in class for discussion. Only submit one copy of the homework. DEN students will submit through DEN. On campus students will submit in class. You do NOT need to also email me a copy.

If you have a question regarding the grading of homework, you should bring it to the attention of the instructor as soon as possible. If you have a problem with the grading (such as you turned in a paper and the score is not posted within 2 weeks), **please advise the instructor or course assistant immediately or the ability to investigate the problem may be lost**. Unclaimed papers will be discarded after two weeks. DEN students are expected to send homework prior to commencement of class and should keep a record of transmittal.

Quizzes and Examinations:

There will be a quiz almost every class at the start of class. DEN students are expected to complete the quiz on-line before 6:00 p.m. and an effort will be made to post the quizzes in advance. There is no make-up of a missed quiz. However, if a resident student expects to be away from class for a valid reason (e.g. employment travel) then special arrangements can be made to allow the quiz to be taken on-line.

The quizzes will be based primarily upon two subjects: the lecture from the previous week and the reading assignment for that week. **You are expected to have read the relevant assignment prior to the start of class.**

Examinations are not cooperative. The quizzes are open book and open note, but you should not rely too heavily on this as time is limited. You may not share books or notes. Calculators may be used if appropriate. Laptop computers may be used for archival of course documents but internet access or external programs such as dictionaries may not be used. The final examination will be cumulative and closed book. DEN students near campus should be personally present for the final exam. Remote DEN students will take the final exam at a proctored location.

The format of the examinations will all be true-false or multiple choice or matching. While this may be criticized for not allowing partial credit, I have found that there is an extremely high correlation between students who do well on essay type exams and those that do well on objective tests. The very large number of questions that will be given during the semester also reduces to near zero the chance that guessing will have a significant impact on the final total points.

Instructional Philosophy:

I would like to make two important points with regard to the course. First, the goal of the course is **not** about your grade. My goal in the course is to make it possible for you to learn at least as much of the subject matter as I present and as much as you want to. There is only one purpose of the quizzes and assignments and tests which is to help you learn the material and then evaluate your understanding so you can improve. If you need help with the homework, discuss it with another student. If you don't understand the material, don't worry and wander around the intellectual darkness...ask the instructor. Learning is not about competing with others, it is about doing the best you can.

Second, grading is inherently unfair. It does not measure effort. It does not measure worthiness, need or desire. It does not measure the amount of your improvement. It only measures either (a) final performance relative to a fixed standard or (b) final performance relative to others in the class. The grade is not the goal, the grade is only an outcome. Most of you will not understand this, but the grade is not important. You are IN graduate school. Your present or future employer is not going to ask you what your grade was in ISE 566. Instead, you will be asked to determine the cost of a product, for instance. It is not your grade that will determine if you can do this, it is your knowledge of the subject. I assure you, if you get a good grade, it will reflect a knowledge of the material.

DEN:

DEN students and on-campus students have access to course webcasts at the DEN website. DEN students may watch webcasts of the lectures as they occur or subsequently, or both. On campus students automatically have DEN access. On campus students may review lectures after they occur. For technical problems with the course website, contact DEN Web Support at 213-821-1321 or email at webclass@den.usc.edu. For general administrative questions relating to DEN call 213-740-4488 or email denadmin@usc.edu. The discussion board feature of DEN will be activated.

For the DEN students in the Los Angeles area many have attended the class sessions personally when possible and have relied upon DEN only if necessary. Almost uniformly, the DEN students prefer attending in person rather than watching the video. Webex will be enabled so you can telephone in.

DEN TESTING

Some students have had problems using the DEN testing feature. In order to assure smooth operation, PLEASE FOLLOW THESE INSTRUCTIONS:

- 1) Use Mozilla Firefox as web browser. You may download Firefox for free here: <http://www.mozilla.com/en-US/firefox/>
- 2) Run the latest Java software. Download Java for free here: <http://java.com/en/>
- 3) Disable pop-up blockers, or, at least, allow pop-ups from the domain <http://www.uscden.net>.
- 4) Save your work every five minutes to prevent loss of data due to poor connectivity or a timed-out connection.
- 5) Log-out and log back in to the exam if you encounter connectivity problems. BUT REMEMBER, THE TIMER CONTINUES TO RUN ONCE YOU HAVE STARTED (EVEN WHEN YOU LOG OUT).

Miscellaneous:

There is no term project or paper due either as a requirement or as “extra credit.” Taping of class presentations or discussions is not allowed. This is what DEN is for.

Personal Conflicts:

Occasionally, a student will have a personal, family, medical or other emergency, will have the necessity to travel for work related business, or will be compelled to miss a class due to a significant university sponsored event in which the student will participate. Contact the instructor as soon as the conflict is known and arrangements will be made to the extent possible to allow the student to timely turn in homework assignments and complete the quizzes.

Additional Important Information: (The “legal” stuff...what else would you expect)

Academic Integrity

The Viterbi School adheres to the University’s policies and procedures governing academic integrity as described in *Scampus*. Students are expected to be aware of and to observe the academic integrity standards applicable to all students and will be enforced in this course.

Disability Services

Any student requesting academic accommodations based upon a disability is required to register with the Disability Services and Programs Office (DSPO) each semester. A letter of verification for approved accommodations can be obtained from DSPO and should be promptly delivered to the instructor. DSPO is located in STU 301 and the telephone is 213-740-0776.

Religious Observances

On occasion a class session may conflict with a special day of religious observance. If you advise me in advance, reasonable accommodation will be made.

COURSE CALENDAR

(Subject to Revision)

I.

ORGANIZATION OF THE ENGINEERING ENTERPRISE

- May 22 Course Introduction: American legal system;
- Reading: Handout Materials Chapter 1 and 2
Ascent of Money Intro and Chapter 1
Pre-Lecture Video View*
- May 27 Business Forms: corporations, partnerships, LLC's, joint ventures; equity investments; reorganizations
- Quiz
Reading: Handout Materials Business Forms and Corporations
Assignment Due: American Legal System
Ascent of Money Chapter 2
View: Blackmoney (Frontline)*
- May 29 Capital Markets: Stocks, bonds, options, mutual funds, exchanges, margin, leverage, interest, dividends, pricing and trading
- Quiz
Reading: Handout Materials Stocks and Bonds
Assignment Due: Business Forms*
- June 03 Debt Transactions: secured and unsecured lending in real and personal property; bonds and debentures; recourse and non-recourse financing; personal guarantees
- Quiz
Reading: Handout Materials Borrowing and Lending
Assignment Due: Stocks and Bonds
Ascent of Money Chapter 3
View: Meltdown (Frontline)*

II.

FINANCIAL ACCOUNTING FOR ENGINEERING MANAGEMENT

June 05 Introduction to Financial Accounting Concepts: cash and accrual accounting, historic basis, depreciation, The Balance Sheet: short term and long term assets and liabilities, retained earnings, tangible and intangible assets, goodwill

Quiz

Reading: Text Chapter 1/ Handout Materials on Accounting Principles

Assignment Due: Debt Transactions

June 09 The Income Statement and Cash Flow Statement: cash and accrual income, depreciation effects, amortization concepts

Double Quiz (Part I)

Reading: Handout Materials/ Text Chapter 14

Assignment Due: Financial Accounting and Balance Sheets

June 11 Financial Statement Analysis: present worth analysis, rate of return, financial ratios; Ethics Materials (time permitting)

Quiz

Reading: Handout Material/Text Chapter 15

Assignment Due: Income and Cash Flow Statements

Ascent of Money Chapter 4

III.

ACCOUNTING FOR ENGINEERING OPERATIONS MANAGEMENT

June 17 Operational Costs: material and labor costs, fixed and variable, direct and indirect costs, opportunity costs, make or buy decisions

Double Quiz (Part II)

Reading: Text Chapters 2 and 12

Ascent of Money Chapter 5

Assignment Due: Financial Statement

June 19 Systems Design: Job order costing; cost measurement, costs of goods sold and manufactured, overhead rates; process costing; flow of materials, labor and overhead costing

Quiz

Reading: Text Chapters 3 and 4

View Mind Over Money (Nova)

Problems Due: Exercises 2-1, 2-2 (1 to 8), 2-3, 2-6, 2-7, 12-3, 12-5, 12-7

June 24 Cost Behavior and Cost Volume Profit Relationships fixed and variable costs, equation and contribution models

Quiz

Reading Text Chapters 5 and 6

Ascent of Money Chapter 6 and Afterword

Problems Due: Exercises 3-1, 3-2, 3-3, 3-7, 4-2, 4-3, 4-4

View: Money, Power and Wall Street (video)

June 26 Variable Costing and Activity Based Costing overhead allocation, activity rates, budgeting and cash flow:

Quiz

Reading Chapters 7 and 10

View: Green Fire video

Problems Due: 5-2, 5-4, 5-6, 5-7, 6-1, 6-2(1), 6-7

June 27 Review Session

Jul 01 Final Exam-Cumulative

Problems Due: 7-1, 7-3, 7-5 10-1, 10-2, 10-4