Public and Private Investment Analysis
EC 314
Spring 2013
James Woods

1 Introduction

This course will examine the tools required to analyze expenditures that yield benefits over time—investments. The use of accounting documents and a focus on the time value of money will allow students to analyze choices in a variety of security, loan, and equipment investment decisions.

The main objectives are to prepare engineers for their PE exams and to provide engineers, economists and others with a shared language and understanding of basic finance topics.

2 Prerequisites

There are no prerequisites for this course. However, a reasonable math background is a practical requirement. The math placement assessment for MTH 111, testing concepts from MTH 70 and 95, i.e., high school algebra, will be given on the first day. If you don’t do well, you should reconsider enrolling in this course.

3 Contact Information

This course has a lot of students. If each of you sent me an email once a week, I would be unable to respond to all your questions.

Before you email, check the discussion boards on D2L. I have set up a topic for each of the class modules. If you need a clarification or have a concern about a quiz question, look to see if someone has asked the same question and if it has been answered. If you have a question about course mechanics, interpretation of the syllabus, or where something is located, there is a forum topic for that called “Course Mechanics, Syllabus and Other Things”.

I will check these forums on a regular basis and answer questions, but I also expect you and your peers to help each other. If you send me an email with a question that should be asked in a D2L forum, I will ask you to post it there rather than answer in email.

The TA assigned to the class is Krystine McCants. Her contact information is:

- Office Hours: TBA, CH 230
- Email/gtalk: kmccants@pdx.edu
- D2L Chat on occasion.

My office is in CH 241-T. The best ways of contacting me, in decreasing order of effectiveness:

- My Email/gtalk: woodsj@pdx.edu
- Phone/text: (503) 465-4883
• Skype: woodsjam
• D2L email: I will not respond

You will get a quicker response from both Krystine and I if you include ‘EC314’ in the subject line. My office hours will be held on Monday from 2:30-3:30 through the last week of class. There is no need to make an appointment for these hours – just come. I will be in the office and online in a Google hangout at that time. The link to the hangout can be found on the class landing page in D2L.

If you can’t attend regular office hours, please check my calendar link in D2L. I will make a limited number of 15 minute slots available each week. If you make an appointment and fail to show up without first canceling, I will penalize you one quiz grade.

4 Textbooks and Other Sources

I have assigned Chan S. Park “Contemporary Engineering Economics 4ed”. If the 4th edition is unavailable, the 3rd or 5th editions are also acceptable but all readings and suggested questions will be from the 4th edition. I am pretty comfortable with any engineering economics textbook you choose, but it is your responsibility to figure out the relevant readings from the descriptions of the subject matter. The table of contents for the 4th edition is posted in D2L to help you make the correspondences. Many students have found the textbook unnecessary given the online resources.

Many students have found “Schaum’s Outline of Engineering Economics” by Sepulveda, Souder and Gottfried a useful second reference.

4.1 Online Resources

We will make significant use of online resources and technology. The two essential tools are:

• D2L
• Course Wiki

4.1.1 D2L

D2L is our main platform. Should you have technical problems with D2L or your computer please resolve them yourself with the general campus help desk or D2L help (http://www.psuonline.pdx.edu/). You will also find a tutorial on how to use D2L on your D2L landing page. You are responsible for learning how to use D2L.

The course D2L landing page will have several important links:

• EC314 Wiki, where most of the supplementary material, videos and podcasts reside.
• Schedule an Appointment, where you can arrange times to meet other than office hours.
• Calendar of Topics and Deadlines, for deadlines and due dates.
• Table of Contents for 4th Edition Book
• Link to “Hangout for Office Hours”.

Pay particular attention to the course content tab in the upper left. This is where most of the online work starts. Each module will be structured with one or more of the following:

• Preparation: Pages out of the book and wiki you should read. Wiki links are not required, but cover much of the same material we will in class.
• A Forum on the Quizzes: This is intended to be a space to discuss the material in the module. Please do not post the answers to quizzes in this forum.

• A Required Forum: This is a graded item that may not be in every module. It will typically ask for you to construct an example, is equivalent to a ‘Pre’ quiz grade, and is graded on a pass/no pass basis.

• A ‘Pre’ assignment: This is an online assignment that should prepare you class. This counts towards your grade. You will be allowed to take these up to two times.

• A ‘Post’ assignment: This is an online assignment that counts towards your grade and is equal to two ‘Pre’ assignments. You will only be allowed to take these quizzes once.

The pre and post quizzes are timed so please do not start them and then close them. Only start the quizzes when you have the time to finish them. Please note that I dislike it when students take quizzes at the same time from the same IP address.

We will vote on when the online assignments will be due on the first day of class. There are deadlines, often more than one for each assignment. Discussions will typically have two deadlines, one for an initial contribution by you and a separate deadline for you to comment on others’ contributions. These deadlines will be in the calendar link on the front page. I don’t do late.

The news section will be used to announce the times of the week’s tutorials as well as other announcements.

If you have questions related to course administration, post them in the “Course Mechanics, Syllabus and Other Things” discussion area by composing a message with a brief version of your question in the subject line. This way we can form a knowledge base that everyone can use. If you email me a question like this, I will just ask you to post the question in this area. Save yourself a step and start with a forum post.

4.1.2 EC314 Wiki

The second most important resource is the wiki. Most of the supplementary reading material, videos, screen-casts, and podcasts are collected here. You should visit the “Course Outline” link on the left (http://ec314-pdx-edu.wikidot.com/outline) to see what we will be doing.

A link to the wiki may be found on the D2L landing page. You should be able to see all the material but if you wish to edit the pages you must create an account and then request access to the wiki.

This resource is outside of PSU and the help desk will not provide assistance. If you have questions please post on the D2L “Course Mechanics, Syllabus and Other Things” discussion or look directly to wikidot for help. You and I are both customers. I have no special status.

If you intend on editing pages or making contributions please look at the “how to” pages and try some things out in the sandbox.

4.2 Netiquette

Since we will be having online interaction, we should be clear about what we should and should not do.

In class I can see what is going on at all times. In the online environment, I can’t see everything and I can’t react as quickly to what I do see. Students are expected to be particularly trustworthy both in terms of their own conduct, and in reporting inappropriate conduct to me via email.

I will not tolerate profanity, obscenity, or remarks intended to discount or dismiss either a person or his or her point of view. I will not count such messages for grade. They will be deleted from the message board and returned to you for revision, failure to do so will result in loss of points.

If your inappropriate message is in the public forum, I will warn you once in that public space. If you continue with inappropriate conduct in the public spaces, your access to them will be denied for the rest of the class with the resultant loss of points. If your inappropriate conduct is in private, a student code of conduct violation complaint may be filed.
4.3 Attendance and Online Participation

Attendance is not mandatory- the choice to attend or not attend is always yours. If you do choose to attend class, please prepare by completing the required readings and reviewing your notes from the previous lecture. If you choose not to attend a class, you are still responsible for acquiring notes, handouts, and any announced schedule changes from other students. You will be ineligible for pop quizzes or the demonstrations of basic skills.

Don’t let your children be a barrier to attending class. Bringing your children to class occasionally is tolerated and encouraged.

Online participation is not optional. That is how we do homework.

5 Assessments and Grade Policy

Your grade in the class will be based on your performance on the online and in-class assignments. There are no midterms and there is not a final exam.

Every lecture has a chance of one or more pop quizzes. Completing the in-class quizzes, regardless of performance, results in full credit.

There will be both practice and graded assignments on D2L. A ‘Pre’ quiz with 20 points is worth the same as a ‘Pre’ quiz of 3 points as far as your grade goes. Points are only comparable within a quiz, not between quizzes.

Grades will be based on your class rank, subject to the minimum requirements described below. At the end of the term I will create a weighted average score and rank the students – dropping the two lowest pre/inclass quiz scores or single lowest post quiz score. The dividing lines between letter grades will be drawn such that no student is near a dividing line. In this way no student will ever be, “just one point from an A.” You are in a very real competition for grades in this class. If someone cheats it harms your chances of getting an A. I usually end up with about 30% A’s and 30% B’s.

The dropped scores are intended to be a buffer for technical failures, illness, bad days and other bad luck. I will take care of this adjustment at the end of term. You need not do anything.

5.1 Minimum Requirements for Grades Higher than C

The course is focused on four essential skills. You must demonstrate proficiency in at least three to receive a course grade higher than a C:

- Accounting: Knowledge of the definitions and locations of a small subset of items found on income statements, balance sheets and cash flow statements.
- Time Value: The ability to represent arbitrary cash flows consisting of common patterns, such as constant series and linear gradient series, in factor notation and compute the present worth of these series.
- Choice: The ability choose acceptable and optimal investments, given cash flows and an interest rate, using the present worth, annual worth and internal rate of return criteria.
- Income/Cash Flow: The ability to construct simple income/cash flow statement for an asset purchase or expense including depreciation, interest, taxes, gains tax and working capital to support an investment decision based on the present worth, annual worth or internal rate of return criteria.

The final 10 to 15 minutes of each session is reserved to allow students to demonstrate these skills with a brief written test. Certifying questions will be made available soon after the topics are introduced in class. Students may attempt one question per class. All questions will be scored on a pass/no pass basis and may be returned with the scoring rubric.

Results will be recorded by Midnight Friday.
Students may schedule a 15 minute appointment, through the link described above, to demonstrate an essential skill via an oral examination. These may be conducted in-person or via Hangout, but not via phone. Times will be available after the first three weeks of the course, but not during final exam week. Times may be limited and is the responsibility of the student to plan appropriately. Please expect to show your student ID.

You will also be able to make three attempts at the final exam and is the only thing that will be done during that period. To be clear, there is not a traditional final exam.

At the final exam period please bring a calculator, a writing implement, and your student ID. You will have your choice of any three essential question, even three of the same. They will be graded on a simple pass/fail scale. This is intended to be your last chance to demonstrate proficiency – not the main chance. We will not admit you without your student ID.

Examples of past questions and keys to the grading rubric may be found in outline on the course wiki under “Essential Skills Hints”.

5.2 Other Rules

- Begging for grades will result in an immediate lowering of your course grade by a full letter grade.
- Go to office hours at the first sign of trouble – not as a last resort.
- In this classroom, we support and value diversity. To do so requires that we:
  - Respect the dignity and essential worth of all individuals
  - Promote a culture of respect toward all individuals
  - Respect the privacy, property, and freedom of others
  - Reject bigotry, discrimination, violence, or intimidation of any kind
  - Practice personal and academic integrity and expect it from others
  - Promote the diversity of opinions, ideas, and backgrounds, which is the lifeblood of a university

For additional information, please see the Office of Affirmative Action & Equal Opportunity at [http://www.pdx.edu/diversity/affirmative-action](http://www.pdx.edu/diversity/affirmative-action).

- Accommodations are collaborative efforts between students, faculty, and the Disability Resource Center. If you have a documented disability and require accommodation, you must arrange to meet with the course instructor prior to or within the first week of the term. The documentation of your disability must come in writing from the Disability Resource Center (Faculty letter). Students who believe they are eligible for accommodations but who have not yet obtained approval through the DRC should contact the DRC immediately. Reasonable and appropriate accommodations will be provided for students with documented disabilities. For more information on the Disability Resource Center, please see [http://www.drc.pdx.edu/](http://www.drc.pdx.edu/).

- Academic honesty is expected and required of students enrolled in this course. Suspected academic dishonesty in this course will be handled according to the procedures set out in the Student Code of Conduct.

- I am sympathetic to family emergencies but you must inform me as soon as possible. If the notice is verbal, please email me with your understanding of our agreement. All agreements have to be in writing.

- I expect online quizzes to be completed by you without consulting your classmates or other human resources.

5.3 Expected Outline

A link to a full, detailed, and continuously updated schedule will be posted on D2L and the course wiki.