

Syllabus

ECON 2500-1 Quantitative Methods for Business and Economics CRN 30058

Fall 2009

Dr. David Tufte

Description: An introduction to applied quantitative methods for business and economics covering three general areas: optimization, simulation, and regression. Electronic spreadsheets are used throughout as the primary tool for analysis and modeling. The optimization section includes an overview of differential calculus along with mathematical programming.

Pre-Requisites: MATH 1050, and 2) MATH 1040 or 2040.

Location: Room 207, Dixie-Leavitt Business Building

Time: 2:00 to 2:50, PM, Mondays, Wednesdays and Fridays

What You Need to Buy: There is no text to buy for this class.

You must buy an iClicker for this class.

You must also sign up for an online service called Aplia. Inside Aplia you will find a digital text, and problem sets. If you use the digital text the cost is less than that of a regular textbook.

Texts and Readings: There are four sections in this class: linear programming, statistics, and two sections of calculus.

There are no suitable linear programming texts that are likely to make you feel like your money was well spent. I will rely on readings on reserve and on the internet for this.

The statistics section of this course will use the text within Aplia. We will only use part of that text.

The calculus sections of the class doesn't seem to benefit too much from having a text available, so I'm going to try and go without one this semester. Again, readings will be made available in the library and on the internet.

Office: Room 313

Office Phone: 586-5407 (leave a callback number if you leave a message)

E-Mail: Tufte@suu.edu (not case sensitive)

E-mails from students are increasingly being caught by spam filters. If you'd like to make sure that I get your e-mail, write it professionally (*i.e.*, no l33t), and put one of the following keywords in the subject line: ECON 2500-1 or Quantitative Methods for Business and Economics or QMBE.

Texting: I don't pay any attention to text or other instant messages from students – so don't bother. You'll be happier with my reliability if I have an e-mail to remind me of our communication.

Office Hours: Monday, 1:00 to 2:00 PM (except on exam days)
Tuesday, 10:30 to 11:30 AM
Wednesday, 1:00 to 2:00 PM (except on exam days)
Thursday, 9:30 to 10:30 AM
Friday, 1:00 to 2:00 PM (except on exam days)
Friday, 3:00 to 5:00 PM

Appointments are available at other times – just call first.

N.B. The “except on exam days” policy is not punitive. I teach two sections of this class, with office hours in between: if I had office hours on exam days, the later class would have an advantage that the earlier class did not.

Web Sites: <http://www.suu.edu/faculty/tufte/>
<http://www.aplia.com/>

Grades: Your grade is the percentage of points you earn out of 1000. There is no curve.

However, you will be given opportunities to earn more than 1000 points.

I do give pluses and minuses, but only to the top and bottom 20% of the grade ranges. Note that when I post letter grade forecasts during the semester, I do not forecast the pluses and minuses.

The grade ranges are:

A More than 92% of the 1000 points
A- More than 90% of the 1000 points

B+	More than 88% of the 1000 points
B	More than 82% of the 1000 points
B-	More than 80% of the 1000 points
C+	More than 78% of the 1000 points
C	More than 72% of the 1000 points
C-	More than 70% of the 1000 points
D+	More than 68% of the 1000 points
D	More than 62% of the 1000 points
D-	More than 60% of the 1000 points
F	60% or less of the 1000 points

Exams: You must post an exam score on each of the 4 sections of the class.

There will be non-comprehensive in-class exams on each of the 4 sections of the class. Please note that you will be given the entire class for exams.

There will also be a comprehensive final of 4 sections. This will be held at the scheduled final exam time.

So, you have 2 opportunities to take each of the four sections of the class. Make-up exams will not be offered at other times. Absences from scheduled exams are entered in my grade book as zeroes.

There are two reasons to take the final exam: 1) you may take 1 section of the final to replace a low grade from an in-class exam, 2) you may take as many as 3 more sections of the final to replace zeroes you got from skipping exams. Please note that each section of the final should take about the same time as an in class exam, and that because the final exam is scheduled for about twice as long as a class, you are unlikely to be able to complete all 4 sections of it successfully.

You may also choose to skip the final exam.

All exams (or sections of the final) are worth 100 points, for a total of 400.

**Exam Dates
and Material:** Wednesday, September 23rd
Wednesday, October 14th
Wednesday, November 4th
Friday, December 4th

I am willing to adjust those 4 exam dates if we so during the first week of classes.

The final is Friday, December 11th at 1 PM. Please note that

professors are not obligated to offer final exams at alternative times.

Homeworks: There will be homeworks. These are due at the start of class.

Homeworks may come as often as every day. You need them, but to be honest, I can't always keep up with that grading schedule.

Unless specifically directed otherwise, 1) you can and should work together on these, and 2) you must turn in your assignments handwritten.

Homeworks will be a mix of online assignments done in Aplia, and assignments done by hand.

These assignments will all be out of a different number of raw points. I will convert these grades to percentages.

I will drop the lowest third of your homework percentages.

The average of your remaining homework percentages will be multiplied by 3 to get your total homework points (out of 300).

Makeup Homeworks: Late homeworks will not be accepted.

On rare occasions I may permit you to do a make-up assignment. Expect such assignments to be twice the length of the regular assignment.

iClickers: You will have iClicker questions that count towards your final grade almost every day.

The scoring for iClicker questions is identical to that for homeworks: different number of raw points each day, convert to a percentage for each day, drop the lowest third of those percentages, average what's left, and multiply by 3 to get a score out of 300 points.

Absences: There are no excused absences from iClicker questions.

iClicker Discussion: You can and should talk as much as you need to about the questions.

You may not use someone else's iClicker.

Scoring and Grading Tips: There is no curve. Your grade comes from iClickers, homeworks, and exams in order of decreasing chances for collaboration. This

means that your scores will probably down go in that order as well.

So, use the iClickers as a substitute for a curve. Your goal should be to put up as many points as you can with these. Also, be aware that in the end what will most differentiate your grade from your friends and neighbors will be your exam scores. Homework scores will reflect a mix of those two issues.

The bottom line is that the iClickers and homeworks is what will help you pass the class, but the exams will be what determine where you fall in the A, B, or C range.

My Exam and Homework Philosophy:

My homeworks are not preparation for the exams. Economics is a subject that often takes a long time to “gel” in a student’s mind. The due dates of your exams and homeworks are scattered through the semester to permit you multiple chances at scoring well on each topic.

Sometimes an exam will be first – so use that to improve your score on the homework that follows. Sometimes homework will be first – so use that to improve your score on the exam that follows.

It is intentional that you get multiple scores in multiple formats on each chapter as you progress through it.

A Tip About How Aplia Homeworks Influence Your Grade:

Let’s be realistic: students blow off assignments sometimes. You will get a zero if you do not attempt a graded Aplia quiz. Dropping low scores gives you some cushion, but you still need to do some Aplia sometime.

Students will also blow off studying for an exam, but they are less likely to blow off the exam itself. So, students that don’t study but show up for the exam might get 30-50% right just by guessing. The reason you show up even if you know you’re going to bomb a test is that those few chance points might make a difference.

You need to take the same attitude towards your Aplia assignments: just logging in to Aplia and entering random answers may earn you a few points that could be critical later on when you are scrambling for points. Obviously none of this is a substitute for actually working hard and doing well. Nonetheless, I’ve had quite a few bright students who got lower grades than they deserved because they skipped rather than attempted Aplia quizzes.

A Note About
How Business
Majors Feel
About
Quantitative
Skills:

Many students major in business disciplines because they felt inadequate when asked to do quantitative work in earlier school work.

Many times this is on open display with comments like “I’m not good at calculus”, or “I don’t like statistics”.

This is in spite of the fact that most students actually like doing quantitative work because it’s objective: you can actually get an answer and understand the basis for it being right or wrong.

So, let me clue you in to the most common problem I’ve had doing quantitative material with SUU students. It isn’t calculus. It isn’t statistics. It isn’t professors for whom English is a second language. The primary problem is 9th grade algebra. The secondary problem is middle school arithmetic: fractions, exponents, percentages, and estimation. A tertiary problem, and one you can be forgiven for, since it is usually covered in a trigonometry elective, is lack of background in logarithms.

Why
Quantitative
Methods May
Be Important
for You:

Most business students have a hard time seeing the relevance of quantitative skills. It’s really easy to look around at business people you know, “cherry pick” a few of them, and claim that they don’t use quantitative methods in their work.

This viewpoint is easily supported by going and talking to business school alumni, because the fact is that most of them don’t use the quantitative skills they learned in school.

It’s true for you as a student is that most of the people in this class will not end up using their quantitative skills on the job after they graduate. But, a fraction of you will end up using them. One problem for you is that you can’t tell right now which group you are going to end up in.

A bigger problem is that if you find you need quantitative skills once you leave school, they are close to impossible to pick up. There aren’t professional groups to fall back on for support. There aren’t continuing education classes you can take to brush up.

Now – perk up. SUU alumni do come back to us and indicate that we are doing a better job of this than our regional competitors. And you’re fortunate to have 4 economics professors that are all good at this stuff, and accessible to students.

Course Outline

After exams, we have 37 days. This course will be about 50% calculus, 25% statistics, and 25% linear programming.

Academic Integrity

Academic dishonesty will not be tolerated. You are expected to have read and understood the current issue of the student handbook (published by Student Services) regarding student responsibilities and rights, and the intellectual property policy, for information about procedures and about what constitutes acceptable on-campus behavior.

Disability Statement

Students with medical, psychological, learning, or other disabilities desiring academic adjustments, accommodations, or auxiliary aids will need to contact the Southern Utah University Coordinator of Services for Students with Disabilities (SSD), in Room 206F of the Sharwan Smith Center, or phone (435) 865-8022. SSD determines eligibility for and authorizes the provision of services.

Disclaimer

Information contained in this syllabus, other than the grading, late assignments, makeup work, and attendance policies, may be subject to change with advance notice, as deemed appropriate by the instructor.