# Spring 2007 ECON 3818-200: Intro to Statistics with Computer Applications

Instructor: Nikolay Dobrinov

Economics Building

Room #414

 $(303)\ 492\text{-}7709\ (almost\ never\ pick\ up\ or\ listen\ to\ messages)$ 

ndobrinov@gmail.com, nikolay.dobrinov@colorado.edu (the best way to contact me, I am online almost all

the time)

Class website: We will use WEBCT/CU Learn for our class website. All materials will be posted there.

Class Schedule: Lectures: TR/5:00 - 6:15 / HALE 230

Recitations: TA to be determined (TBD)

Email: TBD

Section	Time	Day	Place
211	4:00 – 4:50	Thu	CHEM 133
212	12:00 - 12:50	Wed	MUEN D439
213	2:00 - 2:50	Wed	ECON 13

Office Hours: TBD;

If none of these times works for you and you want to meet me, talk to me or send me an email and

we will arrange to meet.

Textbook: Statistics for Business and Economics

David R. Anderson Dennis J. Sweeney Thomas A. Williams (ASW)

South-Western College Pub

ISBN: 032420082X

### Please note:

The ISBN provided above is for the  $9^{th}$  edition of the book, which is pretty new and expensive. You do not need the  $9^{th}$  edition and you also do not need the CD that comes with the  $9^{th}$  edition. I will provide the data for all computer based exercises which we will use for practice. A very good option is to purchase the  $8^{th}$  edition (2001-06-08 ISBN: 0324066716) as soon as possible so you have it available before the semester starts. Here is a link for good deals:

http://www.campusi.com/bookFind/asp/bookFindPriceLst.asp?prodId=0324066716

## Software:

The software we will use to complete the PC based assignments is SAS. I know many of you have never used SAS, but do not get stressed. For each chapter, where we have to use SAS to solve a problem, I will provide detailed instructions on how to do all the steps in SAS, so you will be learning along the way. The reason I am not using EXCEL is that this is not what is required on the job market. Most companies and government institutions that hire graduates from economics and business use SAS to do their statistical analysis, and this is what they look for in the resumes. There is a very good and extremely detailed online book (<a href="http://www.math.wpi.edu/saspdf/">http://www.math.wpi.edu/saspdf/</a>), which you can either use online or print chapter by chapter. Also some other good books which you can use are:

The Little SAS Book (this is what I use) Lora Delwiche Susan Slaughter Publisher: SAS Publishing Date published: 2005-11-30

ISBN: 1590477863

http://www.campusi.com/ta\_The\_Little\_SAS\_Book\_by\_Delwiche.htm

Applied Statistics and the SAS Programming Language (5th Edition)

Author: Ron P. Cody Jeffrey K. Smith

Publisher: Prentice Hall Date published: 2005-03-30 ISBN: 0131465325

Statistics+and+the+SAS+Programming+Language

Course

Objectives:

This course is an introduction to statistical and econometric methods for economics and business students. For most of you this will be your first course in statistics. For this reason two thirds of the course we will spend mastering the most fundamental concepts and techniques in statistics: descriptive stats; sampling data from population; inference about the population based on the data from the sample; basic probability techniques and most used probability distributions. The rest one third of the course will be a detailed introduction to regression, the widely used technique to study relationships between phenomena. Though all techniques taught in this course are general and applicable in all areas of study, most of the applications we will look at in this class will be related to solving problems in economics (most of the time) or business.

Prerequisites:

Most important prerequisites for this class are ECON1078 and ECON1088 or equivalent level math courses. Understanding derivatives is necessary. This course does not have the level of technical difficulty of more advanced statistics and econometrics courses. However, the large range of topics covered can make this course challenging.

Attendance:

Attendance for this class is mandatory. Daily attendance will be taken in both class and recitation beginning the second class meeting and the first recitation. In order to receive a passing grade in the course, you must attend a minimum of 80% of the lectures and 80% of the recitations. A signing sheet will be circulated during each class and recitation meeting. It is your responsibility to make sure that you have signed in by the end of class and recitation.

Assignments:

There will be graded assignments supplementing each chapter. Most problems will be taken from the text. The graded assignments will be due Tuesdays or Thursday in class. Please refer to the file "HWschedule.pdf", where I will regularly post due dates for each homework. Due dates depend on how fast we cover material in class, so I can not determine all due dates in the beginning of the semester. You will also receive regular emails with homework due dates. It is your responsibility to check your email. Each homework will be collected from every student, but for a given homework only certain problems or parts of problems will be graded. It is your responsibility to complete all problems within an assignment.

**Recitations:** 

Recitations start second week of classes. Your TA will determine the contents and the rules for the recitation. The recitations will mainly serve as times for you to practice and ask questions.

Regression Project:

The regression project is a project that requires you to exercise your skills on techniques covered in ch.14, ch.15, and ch.16. We will discuss the project in more detail after the second midterm. You will be allowed to complete the project in groups of maximum 4 students, and consequently submit the assignment together. You can also work on the project alone. You will have to use SAS to complete the assignment.

All files that you need for practice and for the graded assignment are posted on WEBCT/CU Learn in the folder "Ch.15 and Ch.16 Multiple Linear Regression / Homework". All directions and conditions are carefully explained in the file with the graded exercise, named "NFL or Unemployment ch.15\_16". Read carefully.

Take this project seriously. I will be more demanding when grading this project than when I am grading your SAS HWs. I will look at both technical approach, results and interpretation, as well as organization of report and writing style.

Start working on the assignment earlier as it may take you a whole day or two to do the calculations and write a good report. A good time for a first meeting of each group will be probably at least two weeks before the end of the semester. Sit down and discuss what will be the question you want to study and how you will approach the available data.

I will also require you to submit an electronic copy of your report.

Exams:

You will have two midterms and a final examination. Second midterm and final will not be cumulative. We will discuss the format of the exams when we get closer to the first exam, but the format should be close to the graded assignments format and what you do in recitations. There will be no make ups for the exams. If you have serious reasons to not be able to come to the exam on the assigned date you need to contact me well in advance. You can take the exam in my office **before** the assigned in the schedule date, but **not after**. I WILL NOT GIVE EXAMS AFTER THE ASSIGNED DAY FOR NO REASON.

Final Exam:

The final exam will cover only theoretical questions on ch.14, ch.15 and ch.16. Final Exam will be only 1 hour long. Your skills in doing regression and interpreting results will be tested with the "Regression Project".

Grading:

Midterm Exam I: 25% (Feb 15, Thu, in class, Ch.1 – Ch.5) Midterm Exam II: 25% (Mar 22, Thu, in class, Ch.6 – Ch.10)

Final Exam: 10% (May 8, Tue, HALE 230, 7:30 p.m. – 10 p.m., Ch.14 – Ch.16)

Regression Project 15% (Due on the day of the Final Exam)
Graded Assignments: 25% (Due dates in the file "HWschedule.pdf")

**Tentative** 

Schedule: What follows is a tentative schedule of material we will cover in class. It is possible that

sometimes we fall a little behind, but roughly we will follow the timeline announced in this table.

#### ECON3818, Spring2007: Tentative Time-schedule

Date	We do:
15-Jan Mon	Martin Luther King Day
16-Jan Tue	Intro and Ch.1
17-Jan Wed	
18-Jan Thu	ch.2
19-Jan Fri	
20-Jan Sat	
21-Jan Sun	
22-Jan Mon	Labor Day
23-Jan Tue	ch.2 and ch.3
24-Jan Wed	
25-Jan Thu	ch.3
26-Jan Fri	
27-Jan Sat	
28-Jan Sun	
29-Jan Mon	
30-Jan Tue	ch.3
31-Jan Wed	
1-Feb Thu	ch.4
2-Feb Fri	
3-Feb Sat	
4-Feb Sun	
5-Feb Mon	
6-Feb Tue	ch.4
7-Feb Wed	
8-Feb Thu	ch.4 and ch.5
9-Feb Fri	
10-Feb Sat	
11-Feb Sun	
12-Feb Mon	
13-Feb Tue	finish ch. 5
14-Feb Wed	
15-Feb Thu	EXAM I
16-Feb Fri	
17-Feb Sat	
18-Feb Sun	
19-Feb Mon	
20-Feb Tue	ch.6

Date	We do	: <u> </u>
21-Feb We	ed	
22-Feb Thu	ch.6	<del></del>
23-Feb Fri		
24-Feb Sat	İ	
25-Feb Sui	า	
26-Feb Mo	n	
27-Feb Tue	ch.7	<del></del>
28-Feb We	ed	
1-Mar Thu	ch.7	<del></del>
2-Mar Fri		
3-Mar Sat	İ	
4-Mar Sui	า	
5-Mar Mo	n	
6-Mar Tue	ch.8	
7-Mar We	ed	
8-Mar Thu	ch.9	
9-Mar Fri		<del></del>
10-Mar Sat	İ	
11-Mar Sur	า	
12-Mar Mo	n	
13-Mar Tue	ch.9	
14-Mar We		<del></del>
15-Mar Thu	ch.9	
16-Mar Fri		<del></del>
17-Mar Sat	İ	
18-Mar Sui	า	
19-Mar Mo	n	
20-Mar Tue	e finish o	ch.10
21-Mar We	ed	
22-Mar Th	u <b>EXAM</b>	11
23-Mar Fri		
24-Mar Sat		
25-Mar Sui	า	
26-Mar Mo	n Spring	Break
27-Mar Tue	e Spring	Break
28-Mar We	ed Spring	Break
29-Mar Thu	u Spring	Break
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Date	We do:
30-Mar Fri	Spring Break
31-Mar Sat	
1-Apr Sun	
2-Apr Mon	
3-Apr Tue	ch.14
4-Apr Wed	
5-Apr Thu	ch.14
6-Apr Fri	
7-Apr Sat	
8-Apr Sun	
9-Apr Mon	
10-Apr Tue	ch.14
11-Apr Wed	
12-Apr Thu	ch.15
13-Apr Fri	
14-Apr Sat	
15-Apr Sun	
16-Apr Mon	
17-Apr Tue	ch.15
18-Apr Wed	
19-Apr Thu	ch.15
20-Apr Fri	
21-Apr Sat	
22-Apr Sun	
23-Apr Mon	
24-Apr Tue	ch.16
25-Apr Wed	
26-Apr Thu	ch.16
27-Apr Fri	
28-Apr Sat	
29-Apr Sun	
30-Apr Mon	
1-May Tue	ch.16
2-May Wed	
3-May Thu	ch.16
4-May Fri	
8-May Tue	Final 7:30pm

# University of Colorado Policies (please read carefully):

If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303-492-8671, Willard 322, and www.Colorado.EDU/disabilityservices

Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, {{insert your procedures here}} Students can see full details at http://www.colorado.edu/policies/fac\_relig.html

Students and faculty each have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to behavioral standards may be subject to discipline. Faculty have the professional responsibility to treat students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which students express opinions. See polices at

http://www.colorado.edu/policies/classbehavior.html and at http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student\_code

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 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). Other information on the Honor Code can be found at <a href="http://www.colorado.edu/academics/honorcode/">http://www.colorado.edu/academics/honorcode/</a>

The University of Colorado Policy on Sexual Harassment applies to all students, staff and faculty. Sexual harassment is unwelcome sexual attention. It can involve intimidation, threats, coercion, or promises or create an environment that is hostile or offensive. Harassment may occur between members of the same or opposite gender and between any combination of members in the campus community: students, faculty, staff, and administrators. Harassment can occur anywhere on campus, including the classroom, the workplace, or a residence hall. Any student, staff or faculty member who believes s/he has been sexually harassed should contact the Office of Sexual Harassment (OSH) at 303-492-2127 or the Office of Judicial Affairs at 303-492-5550. Information about the OSH and the campus resources available to assist individuals who believe they have been sexually harassed can be obtained at: http://www.colorado.edu/sexualharassment/