

# ECON 3818-100

## Introduction to Statistics with Computer Application

### Summer 2010

**Instructor:** Megumi (Meg) Nishimura  
PhD candidate (Graduate student)  
Research Interests: International Trade, Industrial Organization

**Class Meeting Times:** MTWRF 2:30-4:05 PM @ BESC 185

**Office Location:** ECON 309A

**E-mail:** [Megumi.Nishimura@colorado.edu](mailto:Megumi.Nishimura@colorado.edu)

**Class Website:** <https://culearn.colorado.edu>

**Office Hours:** Monday & Thursday 4:20-5:20 PM & By Appointment




**Teaching Assistant:** Mr. Scott Hiller

**E-mail:** [randall.hiller@colorado.edu](mailto:randall.hiller@colorado.edu)

**Recitations:**

|     |             |     |      |     |
|-----|-------------|-----|------|-----|
| 101 | 11:00-12:20 | M&W | ECON | 205 |
| 102 | 11:00-12:20 | T&R | GUGG | 2   |

**Course Description and Objectives:**

-  We will use **Microsoft Excel** to analyze data. But, users of "**Office 2009 for Mac**" cannot use some functions other users can use. Therefore, **we will use computers only few times**. [If you use "**Office 2009 for Mac**", you will be asked to use computers in the university to do homework ]
-  This course will mainly focus on **the basic statistical concepts and statistical theories** rather than the computer applications.
-  To succeed in the course, you will need to keep up with all of the work (lecture, recitation, and homework, etc.).

**Textbook:**[Required]


**David S. Moore** *The Basic Practice of Statistics*, 5<sup>th</sup> Edition


(It is OK to buy 4<sup>th</sup> edition)

**Prerequisites:**

ECON 1000 or 2010-2020 & 1078-1088 or MATH 1300 or MATH 1310 or MATH 1081 or MATH 1080, 1090 & 1100 or APPM 1350 or Equivalent.

**Technical Requirements:**

 We will use Microsoft Excel. It is available in all campus computer labs, including the lab in the basement of Economics department.

 **A clever calculator** is necessary for this course. You need a calculator, which can compute "**Power, Factorial, and Square Root**".

[You can use a graphing calculator in exams.]

**Grading:**

|   |   |
|---|---|
| <b>Midterm Exam 1:</b>  | <b>15% [Monday, June 14]</b>  |
| <b>Midterm Exam 2:</b>  | <b>20% [Friday, June 25 ]</b>   |
| <b><u>Homework+ In-class Assignments</u></b><br>(Only two to four pieces of homework will be given, but Many In-class assignments will be given)                                    | <b>15%</b>  |
| <b><u>Quizzes OR Recitation</u></b><br><br>(Three Quizzes will be given)<br>Q1: Friday June 4 <sup>th</sup><br>Q2: Friday June 11 <sup>th</sup><br>Q3: Friday June 18 <sup>th</sup> | <b>15%</b><br><b>The HIGHER Score of two scores (quizzes, recitation) will be counted.</b><br><br><b>Ex) If your total recitation score=90%, and your total quiz score=85%, the recitation score will be counted.</b> |
| <b>Cumulative Final</b>   | <b>35%</b><br><b>[Friday, July 2<sup>nd</sup> ]</b>   |
| <b>+ Extra credit in-class assignments</b>  | <b>5%</b><br><b>(This score will be added to the overall score.)</b>  |

| Score       | Grade | Score       | Grade |
|-------------|-------|-------------|-------|
| 93- 100 %   | A     | 73- 76.99 % | C     |
| 90- 92.99 % | A -   | 70- 72.99 % | C -   |
| 87- 89.99 % | B +   | 67- 69 .99% | D +   |
| 83- 86.99 % | B     | 63- 66 .99% | D     |
| 80- 82.99 % | B -   | 60- 62 .99% | D-    |
| 77- 79.99 % | C +   | Below 60    | F     |

### Exams

1. **NO make-up exam, will be given without a formal document.**
2. If you have 3 or more final exams on July 2, you are entitled to arrange an alternative exam time for the last exam scheduled on that day. To qualify for rescheduling final exam times, you must provide evidence that you have 3 or more exams on the same day, and **Please inform me as soon as possible.**
3. I will announce before each exam the topics that will be covered. All exams will be held in the usual classroom (BESC 185)

### Homework : ONLY 2 to 4 pieces of homework will be given.

- All problem sets must be submitted to me by the DUE DATE.
- You are requested to submit your homework at the class or the homework box in the ECON department.[Room 212].
- Please do not submit your homework by e-mail.
- Please do not submit your homework to Mr. Hiller (your TA).
- I will post the problem set on CU Learn a week before the due date.
- Late homework will Never be accepted without official reasons.

### Quizzes : Three (Friday) Quizzes will be given..

- No make-up quiz will be given without a formal document.

## General Policies

- 1 **No make-up exam, make-up quiz, or make-up in-class assignment will be given without a formal document.**
- 2 If you have any question about the materials, like problem sets, you are more than welcome to come to my office hours.

### 3 **CULearn.**

#### What I am going to post

- Homework
- The Announcement of exams.
- Practice Problems for exams, and a simple answer key for practice problems.
- Your exam scores.

#### What I cannot post

- Lecture notes.
- 4 **Please follow the CU HONOR CODE.** Any violation of the CU honor code will be immediately reported, and **ANYONE who violates the CU honor code will fail this course.**
  - 5 Please do not bring your pets to the classroom.

## Tentative Course Schedule

The following schedule is subject to change. Since exam dates are fixed, they will cover only the material that has been finished.

| Week of |      | Course Material  | Difficulty |
|---------|------|--|------------|
| 1       | 6/1  | <u>Ch 1 Picturing distributions</u><br><u>Ch 2 Describing distributions</u>  | ★<br>★★    |
|         | 6/4  | <u>Friday Quiz 1 (covers ch 1, 2)</u><br><u>Friday June 4<sup>th</sup>.</u>  | ★★         |
| 2       | 6/7  | <u>Ch 3 The Normal Distributions (important)</u><br><u>Ch 4 &amp; 5 Regression</u>   | ★★★        |
|         | 6/11 | <u>Friday Quiz 2 (covers ch 3,4,5)</u><br><u>Friday June 11<sup>th</sup>.</u>  | ★★★        |
| 3       | 6/14 | <u>Midterm 1: MONDAY, JUNE 14.</u><br>(covers ch 1,2,3,4,5)  | ★★         |
|         |      | <u>Ch 11 Sampling Distributions</u><br><u>(5<sup>th</sup> edition= Ch 14 &amp; A PART of Ch 15) (4<sup>th</sup> edition= Ch 14)</u><br><u>Law of Large Numbers, The Central Limit Theorem,</u><br><u>The Confidence Interval</u> | ★★★        |
|         | 6/18 | <u>Friday Quiz 3</u><br><u>Friday June 18<sup>th</sup>.</u><br><u>(5<sup>th</sup> edition: ch 11,14 A PART of Ch 15)</u><br><u>(4<sup>th</sup> edition: ch 11,14)</u>  | ★★★        |
| 4       | 6/21 | <u>Test of Significance (5<sup>th</sup> edition= Ch 14) (4<sup>th</sup> edition=Ch 14 &amp; 15)</u><br><u>Inference in practice (5<sup>th</sup> edition= Ch 15) (4<sup>th</sup> edition=Ch 16)</u>                               | ★★★★       |
|         | 6/25 | <u>Midterm 2: FRIDAY June 25<sup>th</sup></u><br>(5 <sup>th</sup> edition 11,14,15) (4 <sup>th</sup> edition 11,14,15,16)  | ★★★★       |
| 5       | 6/28 | (4 <sup>th</sup> edition=Ch 18) (5 <sup>th</sup> edition= Ch 17)<br>Inference about a population mean<br>(4 <sup>th</sup> edition=Ch 19) (5 <sup>th</sup> edition= Ch 18)<br>Two-Sample problems                                 | ★★★        |
|         | 7/2  | <u>CUMULATIVE FINAL EXAM : Friday, JULY 2<sup>nd</sup>.</u><br><u>(All topics covered in this course)</u>  | ★★★★       |

**Honor 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 ([horror@colorado.edu](mailto:horror@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 <http://www.colorado.edu/policies/hono.html> and at <http://www.colorado.edu/academics/honorcode/>

**Expectations of Classroom Behavior:**

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 policies at <http://www.colorado.edu/policies/classbehavior.html> and a [http://www.colorado.edu/studentaffairs/code.html#student\\_code](http://www.colorado.edu/studentaffairs/code.html#student_code)

**Absences:**

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. Please inform me as soon as possible so that the proper arrangements can be made. Students can see full details at [http://www.colorado.edu/policies/fac\\_relig.html](http://www.colorado.edu/policies/fac_relig.html)