DEPARTMENT OF ECONOMICS & FINANCE
College of Business, Tennessee State University, Nashville, TN, USA

Fall 2012 Syllabus for Statistical Analysis I (ECON-2040)
Prerequisite: **MATH 1110** College Algebra or equivalent, **3** credit hours

Instructor: *Dr. A. Ray*; **Email:** *aray4@tnstate.edu*;
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OFFICE HOURS:
Monday: $10.00AM - 3.00PM$ **(Holland Hall 119)**
Wednesday: $10.00AM - 3.00PM$ **(Holland Hall 119)**

TEXTBOOK AND REGISTRATION WITH MCGRAW-HILL CONNECT:
This course is first in the sequence of **ECON 2040** and **ECON 3050** (newly designed.) Together, these two courses will use a customized book that comes bundled with an online homework and testing system (*McGraw-Hill Connect*). The whole system including a customized e-book is supposed to cost you $\$95$ or so and once registered, you should have continuous access for about **700** days (or, about *two years*). This should be a sufficient time period for you to complete both **ECON 2040** and **ECON 3050**. Both of these courses are required for all College of Business majors.

Here are the steps that you should follow:

- Visit **http://connect.mcgraw-hill.com/class/econ_2040_a_ray_fall_2012**

- Click on the "*Register Now*" button on that page. Follow the instructions to complete your registration.

- Although we will be following a customized e-book for these two (**ECON** 2040 and **ECON** 3050) courses, contents covered in this course (ECON 2040) corresponds to the first ten chapters of Douglas A. **Lind**, William G. **Marchal**, Samuel A. **Wathen**, "*Statistical Techniques in Business & Economics*", *McGraw-Hill Irwin*, 15th Edition.

Having a hardbound book is not required.
Given the current settings, you should be able to print from the e-book.

If you want to have hard copies of the book, please get in touch with the bookstore and/or McGraw-Hill.

(You are **REQUIRED** to use a proper calculator for this course. **You are NOT allowed** to use cell-phone calculators.)

TOPICS IN MORE DETAIL

- What is Statistics (Chapter 1)

- Describing Data: Frequency Table, Frenquency Distributions, and Graphic Presentation (Chapter 2)

- Describing Data: Numerical Measures (Chapter 3)

- Describing Data: Displaying and Exploring Data (Chapter 4)

- A Survey of Probability Concepts (Chapter 5)

- Discrete Probability Distributions (Chapter 6)

- Continuous Probability Distributions (Chapter 7)

- Sampling Methods and Central Limit Theorem (Chapter 8)

- Estimation and Confidence Intervals (Chapter 9)

- One Sample Tests of Hypothesis (Chapter 10)

INTENDED OUTCOME:

The purpose of this course is to provide students with the fundamental understanding of the core concepts of various statistical techniques to facilitate research & decision making in business, finance, accounting, and economics. A good understanding of the materials covered in this course will help students familiarize themselves with the foundations of essential statistical techniques that they are expected to face in contemporary business settings. This is a **REQUIRED** course for ALL business majors in the College of Business at TSU.

ATTENDANCE & ATTITUDE IN THE CLASS POLICY:

In accordance with the *TSU Student Handbook*, "Regular and punctual class attendance is expected of each student" and "permission to take make-up examinations will be affected by irregular attendance." Excused absences due to illness or university approved events must be approved in writing by the office of the vice president for student affairs BEFORE presentation to the instructor. Attendance and tardiness will checked in each class session. Excessive absences without an approved excuse will be reported for appropriate action by the University. Refer to the *Handbook* for detailed policies on attendance. It should be remembered, however, that the above rules are intended to emphasize to the students the importance of regular and continuous attendance. Unnecessary absence from even one class session is a waste of student's time and effort. Students must do their best to avoid accepting appointments that conflict with classes. Most employers, doctors, and administrators are likely to respect a student's wish not to miss a class. Regardless of the reason for absence, it is the student's responsibility to promptly make up for what was missed during her/his absence. Students are expected to abstain from any action that may interfere with other students' ability to fully participate in class lecture and unnecessary departure and return during a class session are disruptive and should be avoided.

GRADING:

- Grading in this class will be based on **10** assignments, **2** quizzes, **1** midterm, **1** comprehensive final and **1** software based assignment plus extra credit.

- Ten Assignments: $\mathbf{50 \times 10 = 500}$ points

- Two Quizzes: $\mathbf{2 \times 100 = 200}$ points

- One Midterm: **500** points

- One Final: **600** points

- One Software Assignment: **200** points

- EXTRA CREDIT 20%: **400** points

- Total for this course: **2400** points

GRADING GUIDELINES:

Suppose you earn $\mathbf{X}$ out of **100** in the entire course (without extra credit). Also, suppose $\mathbf{Y}$ is the score out of **20** that you have earned in the extra credit. Then your graded score in this course will be $\mathbf{P = X + Y}$.

Your final letter grade will be based on the scaled score $\mathbf{P}$ according to the following rule:

- You will earn **A** if $\mathbf{100 \geq P \geq 90}$

- You will earn **B** if $\mathbf{90 > P \geq 80}$

- You will earn **C** if $\mathbf{80 > P \geq 70}$

- You will earn **D** if $\mathbf{70 > P \geq 60}$

- You will earn **F** if $\mathbf{60 > P}$

SPECIAL SOFTWARE LEARNING:

Learning a software is an integral part of this course.

You are **required** to use *Microsoft Excel* and *Microsoft Word* which are easily available in the computer labs.

If you want, you can also buy licenses for your own personal use. It is envisioned that you will be able to complete all your computer based assignments in the university computer labs if you do not have a personal computer. Please let me know in advance if you face any problem.

DISABILITY & NON-DISCRIMINATION POLICY:

University policies regarding disability will be followed. Any student requiring any special accommodation should meet the instructor and/or the concerned department in the university. Requests for appropriate accommodations will be entertained and university guidelines will be followed in each case. It is a policy of the university not to discriminate any individual based on race, ethnicity, disability status etc.

SPECIAL CLASSROOM POLICIES:

You **shall not use** any electronic and *communication equipment* in the class. That include cellphones, pagers, laptops, ipods, ipads etc. You are **REQUIRED** to use a proper calculator for this course. You must bring your calculator to each class. **DO NOT** use cell-phone calculators. **You are expected to be in class on time.** Be courteous to the learning needs of your fellow classmates. Please do not introduce any unnecessary distraction in the class.

TENTATIVE PLAN FOR THE SEMESTER

In the absence of any extenuating situation that might interfere with a our normal progress through the semester, the course will follow this tentative outline. Any departure from this sequence will be announced to the class by the instructor or other competent authorities.

- Week 1 (Starting 08/27/2012): What is Statistics (Chapter 1)

- Week 2 (Starting 09/03/2012): Describing Data: Frequency Table, Frenquency Distributions, and Graphic Presentation (Chapter 2)

- Week 3 (Starting 09/10/2012): Describing Data: Numerical Measures (Chapter 3)

- Week 4 (Starting 09/17/2012): Describing Data: Numerical Measures (Chapter 3)

- Week 5 (Starting 09/24/2012): Describing Data: Displaying and Exploring Data (Chapter 4), Quiz #1.

- Week 6 (Starting 10/01/2012): A Survey of Probability Concepts (Chapter 5)

- Week 7 (Starting 10/08/2012): Discrete Probability Distributions (Chapter 6)

- Week 8 (Starting 10/15/2012): Fall Break, Continuous Probability Distributions (Chapter 7)

- Week 9 (Starting 10/22/2012): Continuous Probability Distributions (Chapter 7), Midterm Examination

- Week 10 (Starting 10/29/2012): Sampling Methods and Central Limit Theorem (Chapter 8)

- Week 11 (Starting 11/05/2012): Estimation and Confidence Intervals (Chapter 9)

- Week 12 (Starting 11/12/2012): One Sample Tests of Hypothesis (Chapter 10)

- Week 13 (Starting 11/19/2012): Quiz #2, Thanksgiving Break.

- Week 14 (Starting 11/26/2012): One Sample Tests of Hypothesis (Chapter 10), Computer Exercise.

- Week 15 (Starting 12/03/2012) & beyond: Any Remaining topic, review & comprehensive final.