ECON 3402 - Statistics for Business I
SPRING 2020

Instructor:  Trung Ly, Ph.D.

Time and Location:

- Section 01: Mon/Wed 09:30 am-10:45 am, Miller Hall 1308.
- Section 02: Mon/Wed 11:00 am-12:15 pm, Miller Hall 1308.
- Section 03: Mon/Wed 02:00 pm-03:15 pm, Miller Hall 2201.

Contact info:  email: trungly@westga.edu

Office & Office Hours:  Miller Hall (RCOB) 1313. My office hours are Mondays & Wednesdays 3:30 pm - 5:00 pm, Tuesdays and Thursdays 2:00 pm-3:00 pm, and by appointment. Additionally, I may hold extra office hours the evening before each exam.

Contacting me (outside of office hours):  Email is the primary mode of communication between you and me throughout this course. You are required to check your university-assigned email account for all class instructions and updates. You are encouraged to ask questions via email but should expect that it may take up to 24 hours to receive a response. If you do not receive a response after 24 hours, please follow up with another email. Due to the large number of emails I get on a daily basis, please start the subject line with “ECON 3402-XX”, where XX is the section number.

All email correspondence should be professional, and should make use of a salutation, a sign-off, proper grammar, and as little slang as possible. This policy is not to encourage formality for its own sake, but rather to build habits to prepare you for your professional life after graduation.

Supplemental instruction:  There are two supplemental instructors for this course.

Overview and Objectives

In Economics, we use statistical methodology to assess and evaluate a theory’s merits, as well as make predictions and forecasts. This course will provide an introduction to basic probability and statistics so that you become comfortable with definitions, methods, and procedures to gain a better understanding of statistics presented in the media and basic research. It will also prepare you for future work in economics, particularly Econometrics.

In the first part of the course, we will discuss basic statistical concepts used to describe data and basic probability theory (Chapters 1-5). In the second part, we will examine discrete and continuous probability distributions and sampling theory (Chapters 5-8). In the final part of the semester, we will discuss estimation and hypothesis testing, and I will briefly introduce linear regression models (Chapters 9-11). You will have opportunities to apply these concepts through additional readings that utilize the concepts and methods discussed in class. By the end of the semester, you should be able to:
1. construct and interpret tabular and graphical methods of presenting qualitative and quantitative data (LG2, LG3, LG10)

2. construct and interpret summary and numerical measures of location, variability, and association for the sample and the population (LG2, LG3, LG10)

3. apply basic probability concepts, expected value and variance to a variety of different business applications (LG2, LG6, LG10)

4. use discrete and continuous probability distributions and sampling distributions in a variety of business applications (LG2, LG3, LG6, LG10)

5. construct and interpret interval estimates and hypothesis tests (LG2)

This course presumes knowledge of elementary algebra.

Course Materials


2. Access to a computer with statistical software such as Microsoft Excel, Stata, or R. You may use any statistical analysis software, but I will only be able to offer support for these programs.

Grading and Important Dates

Final grades for the course will be based on the following:

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem Sets</td>
<td>15%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>20%</td>
</tr>
<tr>
<td>Midterm 1</td>
<td>20%</td>
</tr>
<tr>
<td>Midterm 2</td>
<td>20%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25%</td>
</tr>
</tbody>
</table>

Grade distribution: (I reserve the right to change this grade distribution if necessary)

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90%+</td>
<td>A</td>
</tr>
<tr>
<td>80%-89.99%</td>
<td>B</td>
</tr>
<tr>
<td>70%-79.99%</td>
<td>C</td>
</tr>
<tr>
<td>60%-69.99%</td>
<td>D</td>
</tr>
<tr>
<td>Below 60%</td>
<td>F</td>
</tr>
</tbody>
</table>

*Problem Sets:*

A total of approximately 4-5 problem sets plus some additional assignments will be assigned throughout the semester. You are encouraged to work in groups on the problem
sets, but please turn in your own solutions. The problem sets will give you opportunities to apply the concepts discussed in class, so the more you put into them, the more you get out of them (beware the risk of free riding!). They will be graded on completeness and not on accuracy. Problem sets are due at the beginning of class on the date noted on the assignment.

Note: In this course we will not be using the online homework provided by the publisher. As a result, it is not necessary for you to purchase the access code.

Quizzes:
Approximately 5-7 quizzes will be given throughout the semester. These quizzes are designed to reinforce what you learn in class and help you prepare for midterm exams. The date for each quiz will be announced in class and via email.

Examinations:
There will be two in-class midterm exams and a final. The midterms are tentatively scheduled for Wednesday, February 19 and Wednesday, March 11. Please check the final exam schedule for the time and location of the final exam.

Expectations

Attendance:
While no grade is explicitly given for attendance, it will be nearly impossible to do well in this course without regular attendance. Unless you have a legitimate excuse (family or health related emergency, NCAA athletics competition away, or job interview), please make every effort to attend class, arrive on time, and not leave early. If you do not want to be in class, don’t come. There is no penalty for not attending. If you decide to come to class, I expect you to behave in a professional manner. Therefore, do not insult, belittle, or make fun of other students in class. Do not misbehave in class (think excessive talking and disrespect). If an incident occurs once, you will be dismissed from my class for the rest of the class. If it occurs twice, you will be dismissed for the rest of the term.

When you must miss a class, it is your responsibility to get the assignments from me or a classmate. I will be more than happy to help you with course material outside of class as long as you attend class and put forth the proper effort.

Exams:
Makeup exams will only be given for students who have a valid University excuse, applied for in writing and adequately documented. If you have a valid conflict with an exam, consult with me within 24 hours of the missed exam to make alternative arrangements. If you know in advance that you will miss an exam due to a valid conflict, you do not need to wait until after the exam to consult with me; please do so as soon as possible. If you miss an exam without a valid excuse, you will get a zero for that exam.

Electronic devices:
Unless otherwise announced, please do not use electronic devices in class. The
use of a laptop is allowed for note-taking only. Personally, I advise against using electronic devices for this purpose, and here is a link to an article explaining why (http://www.vox.com/2014/6/4/5776804/note-taking-by-hand-versus-laptop). Do not text, listen to music, or surf the internet.

In the event that an exam requires use of a calculator, devices that are capable of connecting to the internet may not be used.

*Academic honesty:*

*You are expected not to engage in academic dishonesty.* One of the goals of this course is to prepare you to do well in advanced economics courses, so it is essential that you develop a solid understanding of the material. **To that end, while collaboration on problem sets is encouraged in this course, copying is not.** Students are expected to understand and abide by the University’s honor code. ([https://www.westga.edu/UWGsyllabusPolicies/](https://www.westga.edu/UWGsyllabusPolicies/)). **Academic dishonesty, such as communicating during a test, using external materials for assistance on a test, or copying someone else’s assignment, will result in grade of zero.**