



**EPPS 6313: INTRO TO QUANT METHODS**  
**Spring 2017**  
**Wednesdays 7:00 – 9:45**  
**Dr. Nadine M. Connell**

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### **Course Information**

EPPS 6313.501 (23846)  
Introduction to Quantitative Methods  
Spring 2017  
Wednesdays 7:00 – 9:45  
GR 3.402B

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### **Professor Contact Information**

Dr. Nadine M. Connell  
Email: [nadine.connell@utdallas.edu](mailto:nadine.connell@utdallas.edu)  
Office: GR 3.520  
Phone: 972-883-4985

Office Hours:  
Appointments available

Other Information: Please use your **UTD email ONLY** to contact Dr. Connell. You will receive a response within 48 business hours.

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### **Teaching Assistant Contact Information**

Mr. Chidike Okeem  
Email: [cio150030@utdallas.edu](mailto:cio150030@utdallas.edu)  
Office: GR 2.510

Office Hours:  
Tuesdays 11:00-1:00  
Wednesdays: 11:00-1:00  
Appointments also available

Other Information: Please use your **UTD email ONLY** to contact Mr. Okeem. You will receive a response within 48 business hours.

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### **Course Pre-requisites, Co-requisites, and/or Other Restrictions**

A Bachelor's Degree and admission to an EPPS program

### **Course Description**

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor. All changes will be related to students in as timely a manner as possible.

This is a graduate course in statistics that will introduce students to fundamental methods of statistical analysis in social sciences. It offers a review of measures of descriptive statistics, probability theory, hypotheses testing, analysis of variance, and simple linear regression. Additionally, students will be introduced to multiple regression. Focusing on the mathematical understanding of social behavior, this class will teach students how to understand research questions within a statistical framework, understand when and how to use the proper tools of statistical inquiry, and see how the use of such tools improves upon our knowledge of theoretical and applied social science knowledge. Through the use of hypothesis testing, you will learn how to apply logical thinking to answer questions about social behavior, from the inception of an interesting problem through the process of measurement, analysis, and interpretation of findings.

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### **Student Learning Objectives/Outcomes (in no particular order)**

1. Construct and visualize descriptive measures for variables of different types
  2. Understand and apply fundamental statistical concepts such as a population, a sample, a sampling distribution, probability, and probability distributions.
  3. Test hypotheses
  4. Estimate confidence intervals
  5. Conduct basic analysis of variance
  6. Build a linear regression model in Stata and R and interpret regression output
  7. Recognize multiple regression models in preparation for EPPS 6316
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### **Required Textbooks and Materials**

**BLS:** Berenson, M., Levine, D., & Szabat, K. 2014. *Basic business statistics* (13<sup>th</sup> Ed.). Boston, MA: Pearson. ISBN: 978-321-87002-5

**W:** Wheelan, C. 2013. *Naked statistics: Stripping the dread from the data*. New York, NY: Norton. ISBN: 978-0-393-34777-7.

### **Suggested Course Materials**

Calculator (this will be important for exams, since you are not allowed to use your cell phone for exams)

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### **Assignments & Academic Calendar**

This course will consist of 2 exams (100 points each), 11 homework assignments (10 points each), 4 computer assignments (25 points each), and one laboratory assignment (50 points). You can earn a total of 450 points towards your grade.

### Assignments:

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor. All changes will be related to students in as timely a manner as possible.

## Exams

**200 points**

There will be two exams in this class. The dates are listed below and on the schedule at the end of the syllabus. Each exam is worth **100 points**. Each exam will cover the material taught in the section preceding it. Please note that the exams are **NOT** cumulative.

**Exam #1:           Wednesday, March 8, 2017**

**Exam #2:           TBD (Finals Week)**

More information about each exam will be given during the course of the semester.

## Homework Assignments

**100 points**

There will be 11 homework assignments throughout the course of the semester. They will be due in each class. Each homework assignment is worth **10 points**. The lowest homework grade will be dropped, for a total of **100 points** of homework assignments.

Homework assignments will be posted on eLearning at the conclusion of each class period and will be due the following week. Please check the schedule for more details.

## Computer Assignments

**100 points**

There will be 4 computer assignments throughout the course of the semester. They will be discussed in class and will be due after computer tutorials have taken place. The computer assignments will cover learning STATA and R (two statistical packages). Please note that both programs are available to students for free in the computer labs. Students have the option to purchase the student version of STATA should they wish (depending on choice, this can cost between \$38 and \$395: see the STATA website for details). R is available free on the internet.

Computer assignments are due as shown in the schedule. They will be posted after class computer tutorials and will be due two weeks after that.

## Lab Assignment

**50 points**

Students will also participate in a group lab project. This lab project will consist of survey creation, data collection, and data analysis. Specific instructions will be distributed on **January 25**. The final project is due on **February 22**. Groups will be assigned on the second week of class.

More information will be available on eLearning.

## Schedule

Please see the attached class schedule for a list of the assigned readings and due dates. The schedule is subject to change due to unforeseen circumstances, but students will always be informed of changes in a timely manner.

## Required Course Technology

### eLearning:

This course utilizes a web page tool called **eLearning** to provide easy access to important course information. You must be registered for this class to log on to the site. You will use the web site to take your quizzes, obtain class information, check announcements, and receive your assignments. You can also obtain grades and replace a lost syllabus, among other things. This site address for the course is:

**elearning.utdallas.edu**

It is very important that you begin to access eLearning as soon as possible and you become familiar with its functions. If you have any problems with eLearning, please contact the UTD Help Desk (<http://www.utdallas.edu/elearning/eLearningHelpdesk.html> or 866-588-3192).

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## Grading Policy

*Grades will be calculated out of 450 points.*

Points	Grade
450	A+
423 - 449	A
400 - 422	A-
391 - 399	B+
378 - 390	B
355 - 377	B-
346 - 354	C+
333 - 345	C
310 - 331	C-
0 - 309	F

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## Course & Instructor Policies

### *Disability Accommodations:*

Please contact the professor as soon as possible with regards to necessary disability accommodations. The sooner that you speak to me, the sooner that we can make arrangements to fully accommodate your disability and discuss strategies to facilitate your learning in the course. It is important to me that all students have the opportunity to participate and engage in this course and I am happy to work with you to ensure that this happens.

The Office of Student AccessAbility (OSA) is located in the Student Services Building, suite 3.200. They can be reached by phone at (972) 883-2098 or by email at [disabilityservice@utdallas.edu](mailto:disabilityservice@utdallas.edu).

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor. All changes will be related to students in as timely a manner as possible.

*Make Up Exams:*

Make up exams will only be allowed with University approved documentation and if the professor is notified within 24 hours of the missed exam (exceptions may apply in rare circumstances). In the case that it is known that an exam will be missed ahead of time, the student is responsible for taking the exam before the appointed time, as set by the professor.

**Please note that the following reasons are NOT considered acceptable reasons for a makeup exam: going on a vacation; sleeping late; being in jail; accidentally shooting your laptop; roommate issues; dating issues; attending a monster truck rally; having your clothing stolen from the dorm washing machine; a bad haircut; the first day of hunting season (or any day of hunting season); cat scratch fever; interviewing for a reality show; and, any other reason that the professor feels is not a reflection of the spirit of the UTD policies towards missing class and assignments.**

**In the event of the zombie apocalypse, all course policies are suspended until further notice.**

*Extra Credit:*

None

*Late Work:*

The same policies for make-up exams apply for late work.

*Special Assignments:*

None

*Class Attendance:*

Class attendance is expected. Please show respect to the professor and your fellow students by **being on time!** If you are not in class, you will not be able to participate or prepare well for your exams. Due to the importance of attendance to ensure success in this course, students with 2 unexcused absences will be subject to a 25-point grade reduction.

Students who do not sign in on the attendance sheet will be counted absent for that day – **NO EXCEPTIONS.** Another classmate may **NOT** sign in for you – this will be considered an act of academic dishonesty and will immediately be referred to Judicial Affairs.

In the case of an absence, the student is responsible for missed materials.

*Classroom Citizenship:*

In addition to the UTD policies on student conduct and discipline, please note that I have the following policies:

1. Laptops are not allowed. This is a participation based class and laptops are a distraction to me and to fellow students. Additionally, a statistics class is one that requires doing – writing things down and solving problems – not passively taking notes. Laptops make that very difficult. Therefore, while electronic notetaking devices may be used if a student has received permission from OAS, most students will find pencil and paper to be the best way to take notes.
2. Lab computers must be **OFF** unless the class is actively engaged in a computer activity.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor. All changes will be related to students in as timely a manner as possible.

3. Cell phones **MUST** be turned **OFF**. If you are expecting a call, please be courteous and leave your phone on silent and then step politely out of the room to answer it. **IF A CELL PHONE GOES OFF IN CLASS, I RESERVE THE RIGHT TO GIVE THE CLASS A POP QUIZ.** Furthermore, I do not expect students to be texting during class. If I see this once, I will offer a generalized warning to the entire class that I do not want to see students texting. If I see this a second time, you will be asked to leave the class and will not receive credit for any assignments for that class period.
4. Do not under any circumstances engage in academic dishonesty. I will refer all questions of academic dishonesty directly to disciplinary proceedings.
5. Students may **NOT** record the instructor or any guest speakers in any manner without express prior permission. You may **NEVER** sell your Power Point presentations, notes, online, or personal study guide materials or any other class materials (with the exception of the purchased required textbook).

### *Email Use*

The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises issues concerning security and the identity of each individual in an email exchange. **The university encourages all official student email correspondence be sent only to a student's U.T. Dallas email address and that faculty and staff consider email from students official only if it originates from a UTD student account.** This allows the university to maintain a high degree of confidence in the identity of all individual corresponding and the security of the transmitted information. UTD furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources at U.T. Dallas provides a method for students to have their U.T. Dallas mail forwarded to other accounts. **You are required to check your eLearning account before our class to get updates, communications, and notices about exams, etc. in this class!**

If you have not done so already, please activate your email and become familiar with eLearning after the first class and begin to check it regularly. If you do not check your email your box will fill and no longer accept new messages, including critical ones regarding grades and university business. The instructor will make no special attempts to reach you if your email is returned due to your box being over quota. **PLEASE CHECK YOUR UTD EMAIL ACCOUNT FREQUENTLY.**

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### **UT Dallas Syllabus Policies and Procedures**

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

**EPPS 6313: Intro to Quantitative Methods**

**Spring 2017**

<b>Date</b>	<b>Topic</b>	<b>Reading</b>	<b>Due</b>
1/11	Introduction The Purpose of Statistics		
1/18	Defining and Collecting Data Organizing and Visualizing Data	<b>BLS:</b> Ch 1: 1.1-1.5 Ch 2: 2.1-2.7	
1/25	Numerical Descriptive Measures	<b>BLS:</b> Ch 3: 3.1-3.6	HW #1 Due Lab Distributed
2/1	Basic Probability	<b>BLS:</b> Ch 4: 4.1-4.5	HW #2 Due
2/8	Discrete Probability Distributions Computer Tutorial #1	<b>BLS:</b> Ch 5: .1-5.4	HW #3 Due
2/15	Normal and Continuous Distributions	<b>BLS:</b> Ch 6: 6.1-6.6 <b>W:</b> Chapters 1-7	HW #4 Due
2/22	Sampling Distributions Computer Tutorial #2	<b>BLS:</b> Ch 7: 7.1-7.4	Lab Due Computer #1 Due
3/1	Confidence Intervals	<b>BLS:</b> Ch 8: 8.1-8.5, 8.8	HW #5 Due
3/8	<b>Mid-Term (BLS: Ch 1-8/W: Ch 1-7)</b> <b>In class: open book/notes</b>		HW #6 Due Computer #2 Due
3/15	<b>NO CLASS - SPRING BREAK</b>		
3/22	<b>NO CLASS - ACJS</b>		
3/29	Hypothesis Testing: One Sample Computer Tutorial #3	<b>BLS:</b> Ch 9: 9.1-9.6	HW #7 Due
4/5	Hypothesis Testing: Two Samples	<b>BLS:</b> Ch 10: 10.1-10.5	HW #8 Due
4/12	Analysis of Variance Chi-Square Test Computer Tutorial #4	<b>BLS:</b> Ch 11: 11.1-11.2 <b>BLS:</b> Ch 12: 12.1-12.2	HW #9 Due Computer #3 Due
4/19	Simple Linear Regression	<b>BLS:</b> Ch 13: 13.1-13.9	HW #10 Due
4/26	Multiple Regression Course Review	<b>BLS:</b> Ch 14: 14.1-14.8 <b>W:</b> Ch 8-12	HW #11 Due Computer #4 Due
TBD:	<b>Final (BLS: Ch 9-14/W: Ch 8-12)</b> <b>In class: open book/notes</b>		