W380K – Research Methods: Advanced Experimental Design and Statistical Analysis Unique Number: 85129 Summer 2020

### **Course Instructor**

Professor: Fiona Asigbee, PHD, MPH

Department of Nutritional Sciences, <a href="https://he.utexas.edu/ntr">https://he.utexas.edu/ntr</a>

Office Hours: by appointment, please contact me

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512-471-3958

Statistics are present throughout our everyday lives, and this is particularly true of nutrition. Nutrition claims such as, "Research shows that this supplement (take your pick) is associated with weight loss/increased energy/reduced appetite/protection from cancer/etc." are found everywhere. The amount of information related to nutrition, especially to nutrition-based health claims, can be overwhelming. This course will provide the knowledge and skills to evaluate and analyze the statistical evidence related to such claims. In addition, you will design and analyze the data for your own study either using an existing database from the TIGER Study or with your own dataset.

## **Communication Plan and Contacts**

Below is a contact list for your instructor and support resources:

COURSE TEAM	EMAIL ADDRESSES	PHONE	OFFICE HOURS
Professor			
Dr. Fiona Asigbee	E-mail: fiona.asigbee@utexas.edu *Preferable form of communication, checked daily. Please allow 12-24 hour response time, although the goal is to respond as soon as possible. I will also respond to the discussion board established in Canvas.	512-471-3958	By appointment, please contact me
<b>Tech Support</b>			
Canvas Support	https://community.canvaslms.com/community/help		
Stata Support	http://blog.stata.com/		
	https://www.statalist.org/forums/		
Cambridge	www.cambridge.org/Stats-Stata		

### **Course Format**

This course will be taught in residence with additional materials available through Canvas. There will be 12 modules over the course of the semester. See the course calendar for more details. When you log into Canvas, you will arrive at your Canvas dashboard. Select the relevant course tile to access the course. Use the course menu on the left side of your screen to navigate within the course.

# **Required Course Materials**

- Textbook: *Statistics Using Stata: An Integrative Approach* (e-book also available) by Weinberg and Abramowitz, Cambridge (ISBN: 9781107461185)
- Stata/IC Data Analysis and Statistical Software (a 6-month subscription of Stata can be purchased for as little as \$45 if you think you will continue to utilize a stats software, buy the best version of this program you can afford).
- Additional assigned readings and articles will be posted on Canvas.

# **Technology Requirements**

- Access to high-speed internet
- Basic computer skills
- Ability to communicate via Internet tools such as chat, email
- Computer with speakers or headphones
- Supported web browser: Internet Explorer, Firefox, Safari, or Chrome
- Download and installation of BigBlueButton; any other plugins
- COMPUTER SOFTWARE & HARDWARE: In addition to the Stata software described above, the primary software requirement for accessing course materials is Microsoft Office 2010 or later. (NOTE: Do not submit documents as zip files or files that are <u>not</u> compatible with Microsoft Office 2010 or later, e.g., Google docs, etc., unless otherwise specified).

# **Grading Policy**

Your semester grade will be based on a combination of your participation in class and on discussion boards, performance on each module assignment, and on the final project. **Weekly assignments are to be turned in by Saturday at 11:59 pm each week.** Final grades will be based on the following point distribution, out of a possible 1200:

Required Assignments	Frequency	Contribution to Course Grade
Class participation/discussion boards	Weekly	120 pts (10%)
Data Analysis Problem Sets	Weekly	275 pts (23%)
Lab Book Entries	Weekly	505 pts (42%)

### **Tentative Course Schedule**

Week	Modules	<b>Due Dates</b>
Week 1: June 7 – June 13	Modules 1 & 2	Module 1: Wed, 11:59 PM June 10 Module 2: Sat, 11:59 PM June 13
<b>Week 2: June 14 – June 20</b>	Modules 3 & 4	Module 3 Wed, 11:59 PM June 17 Module 4: Sat, 11:59 PM June 20
Week 3: June 21 – June 27	Modules 5 & 6	Module 5: Wed, 11:59 PM June 24 Module 6: Sat, 11:59 PM June 27
Week 4: June 28 – July 4	Module 7 & 8	Module 7: Wed, 11:59 PM July 1 Module 8: Sat, 11:59 PM July 4
Week 5: July 5 – July 11	Module 9 & 10	Module 9: Wed, 11:59 PM July 8 Module 10: Sat, 11:59 PM July 11
Week 6: July 12 – July 18	Module 11 & 12	Module 11: Wed, 11:59 PM July 15 Module 12: Sat, 11:59 PM July 18
Week 7: July 19 – July 25	Final Project	Sat, 11:59 PM July 25

### **Course Activities**

Below are the activities and assessments you will complete throughout the course.

- Classroom Lectures: We will cover the course materials through in-class lectures, with additional reading/resource material available in Canvas. Our time in class is much more productive and fun if everyone comes prepared to class. Please review materials in Canvas prior to class for the best experience in this course.
- **Mythbuster Discussion Boards**: Throughout the course, we will have a "Mythbuster" topic of the week, and you will be given materials to read and/or watch. First, the topic will be introduced, and you will discuss issues related to the topic. Then, you will provide evidence to confirm or bust the myth and comment on your classmates' entries.
- **Data Analysis:** Each week, you will complete a series of data analysis assignments designed to give you hands-on experience applying the concepts learned and using the Stata software. For each of these assignments, you will create a Stata log file that you will turn in at the end of each week.
- Lab Book: You will create an ongoing Lab Book, in which you interpret and summarize the statistical analyses you perform each week. You may answer specific questions about the assignments or simply provide an interpretive summary of the data analyses you have performed for the week.

- **Read/Watch/Explore (optional)**: Didactic content activities in which you interact with key concepts presented in engaging video and web-based formats
- Check For Understanding (CFU): CFUs are short quizzes at the end of lessons within modules generated for you to gauge your understanding of the content covered. Each CFU question is worth 0.1 points. These points will be added to your total score and are considered *extra credit*.
- **Final Project**: The final project will involve development of a research question, identification of variables for analysis, complete analysis of a data set provided to you, a written interpretation of the results of your analyses, and a summary and discussion of the findings. The project will also include the creation of graphical representations of the data. Additional details on this project will be provided in a separate document.

## **Course Policies**

LATE ASSIGNMENTS: Late assignments will generally not be accepted. In case of exceptional circumstances, write me an email and we can talk. In general, even in extreme circumstances, 10 points will be deducted for each day the assignment is late.

### DROP / ADD DEADLINES:

June 6th: Last day of the official add/drop period for the summer session.

June 9th: Last day to drop for possible refund.

GRIEVANCE PROCEDURE: Anyone feeling that a dispute exists after the grading of an assignment may submit a written grievance. The grievance should identity the item in dispute and provide arguments supporting the student's position. Grievances must be submitted within two class periods following the return of a course grade. Attach your entire assignment to the grievance.

UT AUSTIN SCHOLASTIC DISHONESTY STATEMENT: As a graduate student and future scientist/researcher, honesty and integrity should be your highest priority. The University expects every student to maintain a high standard of individual integrity. Scholastic dishonesty is a serious offense that includes but is not limited to, cheating on a test or other classwork, plagiarism (the appropriation of another's work and the unauthorized incorporation of that work in one's own work), and collusion (unauthorized collaboration with another in preparing college work offered for credit). In cases of scholastic dishonesty, the faculty member responsible for the course will initiate disciplinary proceedings against the student.

ADA POLICY STATEMENT: The Americans with Disabilities Act (ADA) (42 U.S.C. § 12101, et seq.) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Disability Services. Their phone number is 210.458.4157. Their website is <a href="http://www.utsa.edu/disability/">http://www.utsa.edu/disability/</a>

#### COMMUNICATION AND INTERACTION EXPECTATIONS:

- Use proper grammar and syntax when posting messages.
- Interact appropriately and respectfully with instructors and your fellow class members.
- Respond in an appropriate timeframe (usually 24 hours) to emails and assessments (usually 48 hours).

NETIQUETTE (INTERNET ETIQUETTE): There is an informal code of conduct that most people follow on the Internet. Usually people who break the code become the victims of flame emails. Netiquette includes not sending email or messages in ALL CAPS or with too many exclamation points or asking repetitive questions in forums that have FAQs posted. Sending spam is also a violation of netiquette. You're not legally obligated to follow proper netiquette, but you will have an easier time communicating with others over the Internet if you do.

### TIPS FOR SUCCESS:

- Get familiar with the Canvas technology.
- Make sure that you know your UT Austin Library ID and passphrase.
- Regularly check the Canvas course for announcements and updates.
- Log in to your Canvas course every day.
- Complete all required assignments and quizzes by the due dates.
- Participate in all required blog posts. Online learning is not solitary learning; you must interact with your classmates in the various blog posts.
- Take responsibility for your own learning. Take the course and yourself seriously.
- Be aware of the amount of class work you need to accomplish. Eliminating on-campus meetings does NOT mean less work. Usually, eight hours of work outside of class are required every week in order to succeed in this course.
- Be polite and respectful in all communications with the instructor and other members of the class.

#### ROLES AND RESPONSIBILITIES -- YOUR STUDENT RESPONSIBILITIES:

- You will ensure your full name and course number and section are listed on the Subject line of the email (e.g., John Doe BIO 1033.002) so I know in which course/section you are registered.
- You will check your email account regularly.
- You will not fall behind the syllabus/schedule.
- You will check announcements.
- You will not consistently wait until the last minute to take assessments or submit assignments.
- While you MAY be given a grace period to allow for technical problems, you MUST report problems immediately to me and to IT@UT.

COPYRIGHT AND FAIR USE: Copying, displaying, and distributing copyrighted works may infringe the owner's copyright. The University of Texas System's policy statement on Fair Use of Copyrighted Materials can help you determine whether your use of a copyrighted work may be an infringement. Any use of computer or duplication facilities by students, faculty, or staff for infringing use of copyrighted works is subject to appropriate disciplinary action as well as those civil remedies and criminal penalties provided by federal law.

Copyright law applies to the Internet, which contains a mixture of copyrighted and non-copyrighted materials. An item does not have to display a statement of copyright to be copyrighted. It is assumed that an item is copyrighted until otherwise determined. For more information on copyright, see the University of Texas System Office of General Counsel web site.

THE TEACH ACT: Copyright law provides educators with a separate set of rights, in addition to fair use, to display (show) and perform (show or play) others' works in the classroom (not online). These rights are in Section 110(1) of the Copyright Act and apply to any work, regardless of the medium.

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CONDUCT: "Courtesy, politeness, manners, and civility are all, in essence, forms of awareness. Being civil means being constantly aware of others and weaving restraint, respect, and consideration on into the very fabric of this awareness. Civility is a form of goodness; it is gracious goodness. But it is not just an attitude of benevolent and thoughtful relation to other individuals; it also entails an active interest in the well-being of our communities and even a concern for the health of the planet on which we live."

P.M. Forni – Choosing Civility: The 25 Rules of Considerate Conduct

PRIVACY: Canvas software automatically stores course access records, quiz scores, email postings, discussion postings, and chat room conversations. This is one more reason to make sure that your communications adhere to the netiquette policy.

ALTERNATE COMMUNICATION: In the event that a Canvas problem makes it impossible to use the course communication tools for more than 24 hours, the instructor will communicate with class members through email.

CHANGES: The syllabus, along with course assignments and due dates, are subject to change. It is your responsibility to check Canvas for corrections or updates to the syllabus. Any changes/corrections to the course materials, assignment dates, or other updates will be posted ahead of time in the course Announcements tool. It is your responsibility to check Canvas regularly for updates.

Please refer to the Canvas Orientation to the MSNS Program "More Resources: MSNS Program Information" page for additional course policies including grading structure, accommodations, academic integrity, religious holidays, and drop dates.

### **Emergency Procedures when on Campus**

The following recommendations regarding emergency evacuation from the Office of Campus Safety and Security, 512-471-5767, <a href="http://www.utexas.edu/safety/">http://www.utexas.edu/safety/</a> (Links to an external site.)

- Occupants of buildings on The University of Texas at Austin campus are required to evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside.
- Familiarize yourself with all exit doors of each classroom and building you may occupy. Remember that the nearest exit door may not be the one you used when entering the building.
- Students requiring assistance in evacuation shall inform their instructor in writing during the first week of class.
- In the event of an evacuation, follow the instruction of faculty or class instructors.
- Do not re-enter a building unless given instructions by the following: Austin Fire Department, The University of Texas at Austin Police Department, or Fire Prevention Services office.
- Use the Behavior Concerns Advice Line (BCAL) hotline to report any behavior or incident that is suspicious or disturbing: 512-232-5050
- Link to information regarding emergency evacuation routes and emergency procedures can be found at: utexas.edu/emergency.

### **Student Resources**

The following resources are available to all students on the UT-Austin campus:

- Campus Safety and Security: <a href="http://operations.utexas.edu/units/csas/">http://operations.utexas.edu/units/csas/</a> (Links to an external site.)
- Counseling and Mental Health Center: <a href="https://cmhc.utexas.edu/">https://cmhc.utexas.edu/</a> (Links to an external site.)
- Forty Acres Pharmacy: http://www.fortyacrespharmacy.com/ (Links to an external site.)
- University Health Services: <a href="https://healthyhorns.utexas.edu/">https://healthyhorns.utexas.edu/</a> (Links to an external site.)
- University of Texas Police Department: <a href="http://police.utexas.edu/">http://police.utexas.edu/</a> (Links to an external site.)
- UT Recreational Sports: https://www.utrecsports.org/