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# POLS 20093: SCOPE AND METHODS IN POLITICAL SCIENCE

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**Instructor Name:** Carly Potz-Nielsen

**Semester/Year:** Spring 2022

**Number of Credits:** 3 credits

**Class Location, Meeting Day(s) & Time(s):** LECTURE 040 MWF 12:00 – 12:50, SCHARBAUER HALL 4022

**Office Hours:** 9:00AM – 11:00AM W, Scharbauer Hall 2012A

**Email:** c.potznielsen@tcu.edu

**Response Time:** Emails will be answered within 24 hours during the week (Monday – Thursday) and within 48 hours on the weekend (Friday – Sunday).

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## FINAL EXAM DATE & OTHER IMPORTANT DATES

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**Final Exam** The final exam will take place Monday, May 2nd, 11:00am - 1:30pm.

**Final Research Paper** The final project for this class, an 8-10 page research paper, will be due May 5<sup>th</sup> at 5:00pm CST. *Note: Graduating seniors will need to arrange an alternative due date at least 1 week prior!*

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## COURSE DESCRIPTION

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This class aims to give students the tools they need to analyze data in the service of answering questions about politics and other social phenomena. Most people, if not all, are prone to making causal claims about the world without presenting evidence in support of those claims. As political scientists, our goal is to develop and evaluate statements about the causes of a phenomenon in a systematic manner so that we can understand the way individuals, groups, and governments interact with each other and the world around them.

Quantitative data and statistics surround us in our daily lives. Being able to interpret, analyze, and contextualize data is crucial to understanding any manner of trends, values, and the policy responses they inspire. We will cover one approach to asking, answering, and empirically evaluating questions that are important to us. Students will learn how to ask research questions, how to construct a theoretical answer, and how to evaluate that answer using quantitative data analysis. By the end of the semester, students will have the skills to interact critically with data, research studies, and polls.

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## LEARNING OUTCOMES

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- **Major learning outcomes** Introduction to political science as a field of study and to the major issues in relating theory and empirical research to the study of political behavior.

- **Course Learning Outcomes**

1. Identify research puzzles and questions in the wild
2. Use quantitative data to provide evidence for or against a claim
3. Examine relationships within data using statistical techniques
4. Apply basic statistical analysis using the open-source software R
5. Communicate statistical evidence through oral, written, and visual mediums
6. Evaluate research designs and quantitative evidence

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## PREREQUISITES / PROGRAM OR MAJOR CONNECTIONS

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**Prerequisites** Prior completion of or concurrent enrollment in MATH 10043, MATH 10283 or MATH 10524. If students have prior experience with the software used in the course, R, they should contact the professor for an adjusted lab plan.

**Program/Major connections** This course is required for the BS track and can fill one of the general requirements for the BA track in the political science major. It is also a pre-requisite for upper level methods courses (39xxx) in political science.

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## REQUIRED TEXTS / MATERIALS

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There is one required textbook for this course

- Kellstedt, Paul M. and Whitten, Guy D. "The Fundamentals of Political Science Research." 3rd Edition. 2018. Cambridge University Press.

The edition of this book is not crucial, though different editions may have slightly different organization, meaning the section numbers may not exactly match up with the course schedule. Course readings not from this book will be posted on the website, either as pdf or as hyperlinks.

Additionally, students will be *required to download R and RStudio*, both which are available online for no additional cost. Students should make arrangements to have access throughout the semester to a computer and a drive to save their work, for example, a thumb drive, an online cloud drive, like Google or Dropbox, or a shared drive.

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## ADDITIONAL / SUPPLEMENTARY RESOURCES

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While not required, the following books may be useful references for the material covered in this class.

Li, Quan. "Using R for Data Analysis in Social Sciences: A research project-oriented approach." 2019. New York, NY: Oxford University Press.

Monogan, James E. III. "Political Analysis Using R." 2015. Springer. Available for free from library website.

Powner, Leanne C.. "Empirical Research and Writing: A Political Science Students Practical Guide." 2015. Sage Press.

Wheelan, Charles. "Naked Statistics." 2013. W.W. Norton & Company. Quick R website:  
<http://www.statmethods.net/>

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## TEACHING PHILOSOPHY

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As a teacher, I enjoy sharing with students perspectives and tools to help them evaluate and interact with a world that is constantly bombarding them with differing facts and explanations. Within my courses, I provide the conceptual grounding for evaluating empirical patterns and the skills to effectively analyze and communicate conclusions. To meet this goal, I work to ensure that students understand that the course is an opportunity for them to learn, instead of another hoop they have to jump through to graduate. As students become more effective at communicating their arguments, perspectives, and conclusions they contribute to broader, more interesting understandings of political phenomena. In the first and last class of every course, I stress that students have a role in the creation and development of knowledge. By being thoughtful about how they share their expertise, they can impact the shape of the world around them.

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## INSTRUCTIONAL METHODS

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Each week will contain three minimal points of course engagement.

### Lecture

Lecture sessions are used to relay definitions and introduce course concepts and will review the course concepts via examples and activities.

*Objective: Lectures provide the base knowledge on the content and its context within the course. They will be the primary means through which content is introduced and explained throughout the course. A successful student will use lecture to take note of and ask questions to clarify any course concepts.*

### Group Activities

Group activity instructions will be posted in the corresponding course module and relayed in class. Each group activity is accompanied by worksheets that should be submitted at the end of the class session. The group activities are intended to provide points of reflection, interaction with other students, and benchmarks throughout the course.

*Objective: Activities allow students to experience applying course concepts to real world examples in order to make concepts less abstract. Groups provide for the possible division of labor as well as a way to make connections within the class and to interact with other students' perspectives and understandings of the material. A successful student will complete the group activities and note where they connect with the course material.*

### Labs

Lab sessions will be held during the scheduled section time. Each lab consists of a handout, sample R code and data, and an exercise. Each exercise is designed to apply the commands outlined within the lab handout. Before lab, students should review the lab handout and download and save the data for the exercise in their course folder. To receive full lab participation credit, students must turn in each lab exercise.

*Objective: Labs provide an opportunity to practice R code, which will be used in the final research project. They intentionally have a limited time frame to place constraints on the amount of time spent on the exercise. A successful student will attempt each lab exercise and ask questions whenever they receive errors.*

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## COURSE POLICIES AND REQUIREMENTS

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### ASSIGNMENTS

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#### **Lab Participation (100pts)**

R is only learnt through working through and breaking code. Successful R users must develop habits of precise, intentional, and annotated code. Therefore, each week lab will focus on introducing and working through R commands. Before each lab session, students should read through the lab handout. Each lab worksheet will have a set of questions at the end of the lab that will direct students to apply the code for themselves (~11 throughout the course of the semester). Students are encouraged to work in groups, but should each submit their own lab exercises. If students work in groups, then all members of the group should be listed at the top of each submission.

*Location on course website: Lab handouts and submission link posted in corresponding Course Module, as well as in the Activities tab.*

*Outcomes: (3) Examine relationships within data using statistical techniques; (4) Apply basic statistical analysis using the open-source software R*

#### **Class Participation (150pts)**

Each class, there will be a group activity (~22 through the course of the semester) accompanied by a worksheet to be submitted by the end of the class session. Class participation will be graded on a mix of the completion of these activities, participation in class discussion, attendance, and communication with the professor throughout the semester. Additionally, in the first week of the semester, there will be a Syllabus Quiz (10 points) covering the course policies and expectations detailed throughout the syllabus.

*Location on course website: Class activity surveys given in class. Syllabus Quiz posted as Announcement and in Introduction Module.*

*Outcomes: (1) Identify research puzzles and questions in the wild; (6) Evaluate research designs and quantitative evidence*

#### **Check-in Assignments (5 at 40 pts each)**

There will be 5 check-in assignments throughout the course. They will focus on linking the theoretical points from class to their application in a real research setting and provide feedback to the student on how they are connecting with the course material. Emphasis will be placed on format as well as content. Each assignment will be given out at least a week in advance of the due date. Each assignment is worth 4% of the final grade; they are intended to be a low stakes way to get feedback and develop the skills needed in for the final paper.

Assignments should be saved as .pdfs, with the file title including your last name, the class, and the homework assignment separated by an underscore, i.e. Potz-Nielsen\_POSC20093\_HW1. All R scripts should be copy+pasted on a separate page at the end of the assignments.

*Location on course website: Assignments and submission link posted in corresponding Course Module, as well as in the Activities tab.*

*Outcomes: (2) Use quantitative data to provide evidence for or against a claim; (3) Examine relationships within data using statistical techniques; (4) Apply basic statistical analysis using the open-source software R; (5) Communicate statistical evidence through oral, written, and visual mediums; (6) Evaluate research designs and quantitative evidence*

### **Exams (250 points)**

There will be two exams. The midterm on March 4<sup>th</sup> will be worth 100 points and the final exam on May 2<sup>nd</sup> will be worth 150 points. Both will be closed book/note, in-class exams. The exam will consist of defining key concepts and applying them to address research puzzles. The exam will take place during the class period. The goal of the exam is for students to put the course topics in relation with each other and demonstrate their grasp of the intuition underlying the content under a time constraint.

*Location on course website: Exams will be given in class.*

*Outcomes: (1) Identify research puzzles and questions in the wild; (5) Communicate statistical evidence through oral, written, and visual mediums; (6) Evaluate research designs and quantitative evidence*

### **Research Project (200 pts):**

The purpose of the final project is to demonstrate students' ability to apply the methods learned in this class and communicate what they tell the audience about the question of interest. The final project will consist of an 8-10 page paper (150pts). Datasets for the analysis will be provided. A draft proposal (20pts) for the final paper will be due on February 11th and a formal proposal (30pts) will be due on March 30th.

*Location on course website: Submission links for proposals will be in corresponding Course Modules; resources and submission link for research project and presentation will be available in the Research Project Module.*

*Outcomes: (1) Identify research puzzles and questions in the wild; (2) Use quantitative data to provide evidence for or against a claim; (3) Examine relationships within data using statistical techniques; (4) Apply basic statistical analysis using the open-source software R; (5) Communicate statistical evidence through oral, written, and visual mediums*

### **Research Presentation (100 pts):**

At the end of the semester, students will give a short presentation over their research project. The purpose of this exercise is to give students the opportunity to share their research, as well as the chance for their peers to offer constructive critiques. Feedback from the presentation should be incorporated in the final research paper. On the days that students are not presenting, they will be expected to submit feedback for their fellow students.

*Location on course website: Resources and the submission link for the research presentation will be available in the Research Project Module. Audience feedback forms will be available under each class module. Presentations will be given in-class.*

*Outcomes: (1) Identify research puzzles and questions in the wild; (2) Use quantitative data to provide evidence for or against a claim; (3) Examine relationships within data using statistical techniques; (4) Apply basic statistical analysis using the open-source software R; (5) Communicate statistical evidence through oral, written, and visual mediums; (6) Evaluate research designs and quantitative evidence.*

## GRADING

### FINAL GRADE ELEMENTS / GRADE BREAKDOWN:

Outcome(s)	Assignments, Exams/Quizzes, Presentations, etc.	Percentage	Points
1,6	Class and Group Reflections/Activities	15%	150
1,5,6	Exams	25%	250
3,4	Lab Assignments/Participation	10%	100
2,3,4,5,6	Check-in Assignments	20%	200
1,2,3,4,5,6	Final Research Presentation	10%	100
1,2,3,4,5	Final Research Paper	20%	200

### FINAL +/- GRADE SCALE:

Grade	Score	Grade	Score
A	93–100	C	73–76.99
A-	90–92.99	C-	70–72.99
B+	87–89.99	D+	67–69.99
B	83–86.99	D	63–66.99
B-	80–82.99	D-	60–62.99
C+	77–79.99	F	0–59.99

### OFFICE HOURS

Office hours will be held in person during the designated time or by appointment. Office hours are walk-in, or students can reserve for a timeslot in the Google Spreadsheet. Time slots will be in 15 minute intervals and students can sign up for as many as they want at a time. If the time slot is empty, students are also welcome to walk-in without signing up for any particular time slot. If a student wishes to set up an appointment to meet outside of office hours, they should give at least a 12 hour notice. Appointments will not be held on weekends (Friday 6pm – Monday 8am.)

### LATE WORK

There is a penalty of 5 points for each day an assignment is late. However, late penalties will be waived for assignments - *no questions asked* - if the student emails the instructor before the original deadline and organizes an alternative due date. Assignments 1-3 should be submitted by the first midterm. Assignments 4 and 5 should be submitted by the second midterm. Late lab assignments will not be accepted. Makeup exams or extensions on research papers should be cleared with instructor one week before due date. Extensions on extensions are not allowed. *It is the student's responsibility to keep track of outstanding assignments.*

### WORKING IN GROUPS

Students are allowed and encouraged to work in groups for the labs and assignments. If a student chooses to work in a group, they should include the names of those they worked with to avoid any misunderstandings.

However, students should be sure to turn in individual assignments with their own work. Assignments identical to each other are not acceptable forms of group work. Each student should take care to put their submissions into their own words.

### GRADING CONCERNS

Students should wait to ask questions about their grades until 24 hours has passed from when the assignment or exam was handed back. Disputes should be addressed one-on-one, outside of class, within one week of when the assignment or exam was handed back. Any disputes after that period need to be accompanied with a written memo of where and why the points should be earned.

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## PARTICIPATION / ENGAGEMENT (ATTENDANCE)

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The material covered in this course is cumulative, meaning that small questions in week one, can ripple to giant misunderstandings in week ten. Successful students will therefore regularly ask questions and engage with the course material. It should be noted that engaging with the course material is not equivalent to merely attending class sessions. Students can participate by going to office hours, asking questions during lecture, contributing in class activities, discussing material with the instructor, emailing questions about the class, or asking for assistance with R code or course material through the website.

## CLASS NORMS & NETIQUETTE

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All members of the class are expected to follow rules of common courtesy in all email messages, discussions, and chats. If I deem any of them to be inappropriate or offensive, I will forward the message to the Chair of the department and appropriate action will be taken, not excluding expulsion from the course. The same rules apply online as they do in person. Be respectful of other students. Foul discourse will not be tolerated. Please take a moment and read some [basic information about netiquette](http://www.albion.com/netiquette/) (<http://www.albion.com/netiquette/>).

Participating in the virtual realm, including social media sites and shared-access sites sometimes used for educational collaborations, should be done with honor and integrity. Please [review TCU's guidelines on electronic communications](https://tcu.codes/policies/network-and-computing-policy/e-mail-electronic-communications-social-networks/) (email, text messages, social networks, etc.) from the Student Handbook. (<https://tcu.codes/policies/network-and-computing-policy/e-mail-electronic-communications-social-networks/>)

Course material is expected to remain within the course. This means that students should not record, screenshot, download, or edit course material for any use outside the course without the written permission of the instructor. Further, any material produced by other students, such as discussion posts, chat questions, group assignments, or research projects, should not be copied or edited for sharing without the student's written permission.

## TECHNOLOGY POLICIES

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Students are required to have access to a computer with internet connect for the use of the course site. In addition, **students will be required to download the free statistical software, R and RStudio**, for the lab sessions and for use in the final research project. As the primary form of the communication will be email and announcements through the course site, students are encouraged to set up push notifications for their email accounts and for the course site (<https://documentation.brightspace.com/EN/brightspace/requirements/all/pulse.htm>).

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## EMAIL

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Only the official TCU student email address will be used for all course notification. It is your responsibility to check your TCU email on a regular basis. Students are expected to have read and understood any information contained within class emails 48 hours after they are sent.

The professor will respond to all emails within 24 hours during the week (Monday – Thursday) and within 48 hours during the weekend (Friday – Sunday). If a student does not receive a reply from the professor within these time frames, the student should follow up with the professor.

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## COURSE MATERIALS

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TCU students are prohibited from sharing any portion of course materials (including videos, PowerPoint slides, assignments, or notes) with others, including on social media, without written permission by the course instructor. Accessing, copying, transporting (to another person or location), modifying, or destroying programs, records, or data belonging to TCU or another user without authorization, whether such data is in transit or storage, is prohibited. The full policy can be found at: <https://security.tcu.edu/polproc/usage-policy/>.

**Violating this policy is considered a violation of Section 3.2.15 of the Student Code of Conduct** (this policy may be found in the Student Handbook at <https://tcu.codes/code/index/>), **and may also constitute Academic Misconduct or Disruptive Classroom Behavior** (these policies may be found in the undergraduate catalog at <https://tcu.smartcatalogiq.com/current/Undergraduate-Catalog/Student-Policies/Academic-Conduct-Policy-Details>). TCU encourages student debate and discourse; accordingly, TCU generally interprets and applies its policies, including the policies referenced above, consistent with the values of free expression and First Amendment principles.

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## ACADEMIC MISCONDUCT

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Academic Misconduct (Sec. 3.4 from the [TCU Code of Student Conduct](#)): Any act that violates the academic integrity of the institution is considered academic misconduct. The procedures used to resolve suspected acts of academic misconduct are available in the offices of Academic Deans and the Office of Campus Life and are also listed in detail in the [Undergraduate Catalog](#) and the [Graduate Catalog](#). Specific examples include, but are not limited to:

- **Cheating:** Copying from another student's test paper, laboratory report, other report, or computer files and listings; using, during any academic exercise, material and/or devices not authorized by the person in charge of the test; collaborating with or seeking aid from another student during a test or laboratory without permission; knowingly using, buying, selling, stealing, transporting, or soliciting in its entirety or in part, the contents of a test or other assignment unauthorized for release; substituting for another student or permitting another student to substitute for oneself.
- **Plagiarism:** The appropriation, theft, purchase or obtaining by any means another's work, and the unacknowledged submission or incorporation of that work as one's own offered for credit. Appropriation includes the quoting or paraphrasing of another's work without giving credit therefore.
- **Collusion:** The unauthorized collaboration with another in preparing work offered for credit.



- **Abuse of resource materials:** Mutilating, destroying, concealing, or stealing such material.
- **Computer misuse:** Unauthorized or illegal use of computer software or hardware through the TCU Computer Center or through any programs, terminals, or freestanding computers owned, leased or operated by TCU or any of its academic units for the purpose of affecting the academic standing of a student.
- **Fabrication and falsification:** Unauthorized alteration or invention of any information or citation in an academic exercise. Falsification involves altering information for use in any academic exercise. Fabrication involves inventing or counterfeiting information for use in any academic exercise.
- **Multiple submission:** The submission by the same individual of substantial portions of the same academic work (including oral reports) for credit more than once in the same or another class without authorization.
- **Complicity in academic misconduct:** Helping another to commit an act of academic misconduct.
- **Bearing false witness:** Knowingly and falsely accusing another student of academic misconduct.

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## TCU ONLINE: OUR LEARNING MANAGEMENT SYSTEM

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### GETTING STARTED WITH TCU ONLINE

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**Technical Requirements:** Check your computer is ready by looking at the [specifications list](https://community.brightspace.com/s/article/Brightspace-Platform-Requirements). (<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>)

**Log In:** (using your TCU Network Credentials)

1. Access via [my.tcu.edu](http://my.tcu.edu) > Student Quick Links > TCU Online
2. Login at the following [website](http://d2l.tcu.edu) (<http://d2l.tcu.edu>) my.tcu.edu

\*For information about logging into TCU Online, view these [instructions](http://tcuonline.tcu.edu/kb/how-do-i-log-in/). (<http://tcuonline.tcu.edu/kb/how-do-i-log-in/>).

**Student Orientation Tutorial for TCU Online:** If you have not yet taken the TCU Online Student Orientation Tutorial, please do so now. To access it, click on the Orientations semester OR view all courses in your My Courses widget visible upon logging in to TCU Online. Click on the "Student Orientation Tutorial" to enter the orientation course. Follow the instructions in the course. You can return to this tutorial at any time.

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### HOW THIS COURSE WILL USE TCU ONLINE

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Lectures, lecture notes, and lab materials for each class will be posted under the Content tab. Grades and feedback for assignments, exams, activities, and the final project will be posted under the Assessment tab. Assignments, discussions, quizzes, and exams are posted under the Activities tab and should be submitted through the website. Students should make use of the course calendar to keep up with due dates and synchronous sessions.

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### GETTING HELP WITH TCU ONLINE

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If you experience any technical problems while using TCU Online, please do not hesitate to contact the D2L HELP DESK. They can be reached by phone or chat 24 hours a day, 7 days a week, 365 days a year.

**Phone: 1-877-325-7778**

**Chat:** Chat is available within TCU Online in the Help menu on the navigation bar.

IF YOU ARE WORKING WITH THE HELPDESK TO RESOLVE A TECHNICAL ISSUE, MAKE SURE TO KEEP ME UPDATED ON THE TROUBLESHOOTING PROGRESS.

If you have a course-related issue (course content, assignment troubles, quiz difficulties) please contact me.

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## PERSONAL SETTINGS & NOTIFICATIONS FOR TCU ONLINE

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As a student, you should set up your account settings, profile, and notifications. To do this you will login to TCU Online and select your name on the top right of the screen. You can upload a photo of yourself and add personal information to your profile. In the notifications area, you can add your phone number to receive text messages when grades are given, as well as reminder texts for upcoming assignments and quizzes.

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## STUDENT SUCCESS TOOLS FOR TCU ONLINE

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### PULSE

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[Pulse](#) is a phone app which gives you access to the course calendar, assignments, grades, and announcements. This app provides a graph that can help you manage your time. Based on the number of assignments and events on the course calendar for your classes, the graph will display busy times for class work in the upcoming week. You can use this app to manage your daily workload, and it includes the ability to view and access course materials offline. You can download Pulse from the Google Play or Apple Store. You can learn more and download Pulse here: <https://www.d2l.com/products/pulse/>.

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### READSPEAKER

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[ReadSpeaker](#) includes a number of tools that can enhance your understanding and comprehension of course materials. ReadSpeaker can create an audio version of content that you can listen to while on a page within a course or that you can download to listen offline. ReadSpeaker can also read Microsoft Office files and PDFs. There are additional tools and features to assist you with reading and focusing in TCU Online, tools that provide support for writing and proofing text, and tools that can read non-TCU Online content aloud. You can learn more about how to use ReadSpeaker tools here: <https://tcuonline.tcu.edu/how-to-hub/instructor-how-to-hub-for-tcu-online/integrations-and-mobile/readspeaker/>

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## SUPPORT FOR TCU STUDENTS

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### CAMPUS LIFE AND THE STUDENT EXPERIENCE WILL BE DIFFERENT THIS YEAR

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The health and safety of students, faculty, and staff is Texas Christian University's highest priority. Safety protocols may change during the semester and may result in modifications or changes to the teaching format, delivery method, or the course schedule (e.g., altering meeting times or frequency; changing beginning or ending dates for a term; or partially or completely moving from a face-to-face classroom teaching to an online teaching or remote learning format). Any changes in teaching format, delivery method, or course schedule will not impact the credit hours for the course.

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## HEALTH AND WELLNESS

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**\*Have you gotten the COVID-19 vaccine? Let TCU know. →**

Fill out the vaccine survey by scanning the QR code to the right.



**Are you feeling unwell? Let TCU know.**

If you are exhibiting symptoms that may be related to COVID-19 (fever or chills, dry cough, shortness of breath, etc.) or are concerned that you may have been exposed to COVID-19, you must self-quarantine and consult with the Brown Lupton Health Center at 817-257-7949 for further guidance.

In addition, you must notify the Campus Life Office immediately at 817-257-7926 or use the TCU COVID-19 Self-Report Hotline, 817-257-2684 (817-257-COVI). Campus Life will inform your professors that you are unable to attend class and provide any assistance and support needed. Click here for detailed information concerning COVID-19 symptoms: <https://www.cdc.gov/coronavirus>.

If you are unwell but are not exhibiting potential COVID-19-related symptoms, please notify your instructor as soon as possible that you are ill and will not be attending class.

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## FACE COVERINGS AND PHYSICAL DISTANCING

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Face masks are currently required in TCU classrooms, per the [TCU Campus Readiness Task Force: Face Mask Policy](#). Students not complying with classroom face mask requirements may be referred to Dean of Students Mike Russel.

If TCU lifts the face mask requirement before the end of Fall 2021, the instructor may continue to require face masks in their classrooms. At that point, the instructor will notify the students of their decision and update their syllabus accordingly.

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## TCU Policy for Religious Observation & Holidays

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“Students who are unable to participate in a class, in any related assignment or in a university required activity because of the religious observance of a holy day shall be provided with a reasonable opportunity to make up the examination or assignment, without penalty, provided that it does not create an unreasonable burden on the University.” For more information, please visit the [TCU Policy for Religious Observations & Holidays](#) webpage.

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## STUDENT ACCESS AND ACCOMMODATION

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Texas Christian University affords students with disabilities reasonable accommodations in accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. To be eligible for disability-related academic accommodations, students are required to register with the TCU Office of Student Access and Accommodation and have their requested accommodations evaluated. If approved for accommodations, students are required to discuss their official TCU Notification of Accommodation with their instructors. Accommodations are not retroactive and require advance notice to implement. The Office of Student Access and Accommodation is located in The Harrison, Suite 1200. More information on how to apply for accommodations

can be found at <https://www.tcu.edu/access-accommodation/> or by calling Student Access and Accommodation at (817) 257-6567.

Audio recordings of class lectures may be permitted by the instructor or as an approved disability accommodation through Student Access and Accommodation. Recordings are not to be shared with other students, posted to any online forum, or otherwise disseminated.

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## Campus Offices

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- Alcohol & Drug Education Center (817-257-7100, Samuelson Hall basement)
- Brown-Lupton Health Center (817-257-7938 or 817-257-7940)
- Campus Life (817-257-7926, Sadler Hall 2006)
- Center for Academic Services (817-257-7486, Sadler Hall 1022)
- Center for Digital Expression (CDeX) (cdex@tcu.edu, Scharbauer 2003)
- Counseling & Mental Health Center (817-257-7863, Samuelson Hall basement)
- Mary Coats Burnett Library (817-257-7117)
- Office of Religious & Spiritual Life (817-257-7830, Jarvis Hall 1<sup>st</sup> floor)
- Student Development Services (817-257-7855, BLUU 2003)
- Center for Writing (817-257-7221, Reed Hall 419)
- Transfer Student Center (817-257-7855, BLUU 2003)
- Veterans Services (817-257-5557, Jarvis Hall 219)

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## ANTI-DISCRIMINATION AND TITLE IX INFORMATION

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### STATEMENT ON TCU'S DISCRIMINATION POLICY

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TCU is committed to providing a positive learning, living, and working environment free from unlawful discrimination, harassment, sexual misconduct, and retaliation. In support of this commitment, in its policy on Prohibited Discrimination, harassment, sexual misconduct and retaliation, TCU has a range of prohibited behaviors, including unlawful discrimination and harassment and related sexual and other misconduct based on age, race, color, religion, sex, sexual orientation, gender, gender identity, gender expression, national origin, ethnic origin, disability, predisposing genetic information, covered veteran status, and any other basis protected by law. The **Office of Institutional Equity (OIE)** is responsible for responding to all reports of discrimination, harassment, sexual misconduct and retaliation.

Please use the following links to review [TCU Policy 1.008 Prohibited Discrimination, Harassment, Sexual Misconduct and Retaliation](#) or to review [TCU Policy 1.009 Responding to Reports of Prohibited Discrimination, Harassment, Sexual Misconduct, and Retaliation](#).

To make a report, you may call OIE at 817-257-8228, email [oie@tcu.edu](mailto:oie@tcu.edu), visit us at The Harrison, Suite 1800 or click here: [Make a Report](#).

[To learn about the Campus Community Response Team \(CCRT\) and Report a Bias Incident click here: https://inclusion.tcu.edu/campus-community-response-team/](https://inclusion.tcu.edu/campus-community-response-team/)

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## STATEMENT ON TITLE IX AT TCU

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TCU's Title IX Coordinator works within OIE. Andrea Vircks-McDew serves as TCU's Title IX Coordinator. You may call 817-257-8228 to make a report, email [oiie@tcu.edu](mailto:oiie@tcu.edu) or [a.vircks@tcu.edu](mailto:a.vircks@tcu.edu), or make a report [here](#). Additional Title IX resources and information are available at <https://www.tcu.edu/institutional-equity/title-ix/index.php>.

As an instructor, one of my responsibilities is to help create a safe learning environment on our campus. It is my goal that you feel able to share information related to your life experiences in classroom discussions, in your written work, and in our one-on-one meetings. I will seek to keep any information you share private to the greatest extent possible. However, I have a mandatory reporting responsibility under TCU policy and federal law and I am required to share any information I receive regarding sexual harassment, discrimination, and related conduct with TCU's Title IX Coordinator. Students can receive confidential support and academic advocacy by contacting [TCU's Confidential Advocate in the Campus Advocacy, Resources & Education office](#) at <https://care.tcu.edu/> or by calling (817) 257-5225 or the [Counseling & Mental Health Center](#) at <https://counseling.tcu.edu/> or by calling (817) 257-7863. [Alleged violations can be reported to the Title IX Office](#) at <https://titleix.tcu.edu/student-toolkit/> or by calling (817) 257-8228. Should you wish to make a confidential report, the Title IX Office will seek to maintain your privacy to the greatest extent possible, but cannot guarantee confidentiality. Reports to law enforcement can be made to the Fort Worth Police Department at 911 for an emergency and (817) 335-4222 for non-emergency or TCU Police at (817) 257-7777.

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## OBLIGATIONS TO REPORT CONDUCT RAISING TITLE IX OR VAWA ISSUES

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**Mandatory Reporters: ALL TCU employees, except confidential resources, are considered Mandatory Reporters. Mandatory reporters are required to immediately report to OIE any conduct that raises Discrimination, Harassment, Sexual Misconduct (Title IX or Violence Against Women (VAWA)) or Retaliation. Mandatory reporters cannot promise to refrain from forwarding the information to OIE.**

Mandatory Reporters are required to immediately report to the Coordinator information about conduct that raises Title IX and/or VAWA issues, including any reports, complaints or allegations of sexual harassment, discrimination and those forms of prohibited conduct that relate to nonconsensual sexual intercourse or contact, sexual exploitation, intimate partner violence, stalking and retaliation involving any member of the TCU community, except as otherwise provided within the [Policy on Prohibited Discrimination, Harassment and Related Conduct](#).

Mandatory Reporters may receive this information in a number of ways. For example, a complainant may report the information directly to a Mandatory Reporter, a witness or third-party may provide information to a Mandatory Reporter, or a Mandatory Reporter may personally witness such conduct. A Mandatory Reporter's obligation to report such information to the Coordinator does not depend on how he/she received the information. Mandatory Reporters must provide all known information about conduct that raises Title IX or VAWA issues to the Coordinator, including the identities of the parties, the date, time and location, and any other details. Failure of a Mandatory Reporters to provide such information to the Coordinator in a timely manner may subject the employee to appropriate discipline, including removal from a position or termination of employment.

Mandatory Reporters cannot promise to refrain from forwarding the information to the Coordinator if it raises Title IX or VAWA issues or withhold information about such conduct from the Coordinator. Mandatory Reporters

may provide support and assistance to a complainant, witness, or respondent, but they should not conduct any investigation or notify the respondent unless requested to do so by the Coordinator.

Mandatory Reporters are not required to report information disclosed (1) at public awareness events (e.g., “Take Back the Night,” candlelight vigils, protests, “survivor speak-outs,” or other public forums in which students may disclose such information (collectively, public awareness events); or (2) during an individual’s participation as a subject in an Institutional Review Board approved human subjects research protocol (IRB Research). TCU may provide information about Title IX rights and available resources and support at public awareness events, however, and Institutional Review Boards may, in appropriate cases, require researchers to provide such information to all subjects of IRB Research.

Relevant reporting phone numbers are: 911 for an emergency and (817) 335-4222 for non-emergency or TCU Police at (817) 257-7777.

Confidential On-Campus Resources  
Campus Advocacy, Resources & Education  
[www.care.tcu.edu](http://www.care.tcu.edu)  
817-257-5225

Counseling & Mental Health Center  
[www.counseling.tcu.edu](http://www.counseling.tcu.edu)  
817-257-7863

Religious & Spiritual Life  
[www.faith.tcu.edu](http://www.faith.tcu.edu)  
817-257-7830

On Campus Resources  
TCU Police  
[www.police.tcu.edu](http://www.police.tcu.edu)  
817-257-8400 Non-emergency  
817-257-7777 Emergency

## Statement of Disability Services at TCU

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Disabilities Statement: Texas Christian University complies with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973 regarding students with disabilities. Eligible students seeking accommodations should contact the [Coordinator of Student Disabilities Services in the Center for Academic Services](#) located in Sadler Hall, room 1010 or [http://www.acs.tcu.edu/disability\\_services.asp](http://www.acs.tcu.edu/disability_services.asp).

Adequate time must be allowed to arrange accommodations and accommodations are not retroactive; therefore, students should contact the Coordinator as soon as possible in the academic term for which they are seeking accommodations.

Further information can be obtained from the Center for Academic Services, TCU Box 297710, Fort Worth, TX 76129, or at (817) 257-6567.

*Each eligible student is responsible for presenting relevant, verifiable, professional documentation and/or assessment reports to the Coordinator. [Guidelines for documentation](#) may be found at [http://www.acs.tcu.edu/disability\\_documentation.asp](http://www.acs.tcu.edu/disability_documentation.asp).*

Students with emergency medical information or needing special arrangements in case a building must be evacuated should discuss this information with their instructor/professor as soon as possible.

## EMERGENCY RESPONSE INFORMATION

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Please review [TCU's L.E.S.S. is More public safety video](#) to learn about Lockdown, Evacuate, and Seek Shelter procedures. (<https://publicsafety.tcu.edu/less-is-more/>)

[TCU's Public Safety website](#) provides maps that show our building's rally point for evacuation and the seek shelter location. (<https://publicsafety.tcu.edu/>)

In the event of an emergency, call the TCU Police Department at **817-257-7777**.

Download the [Frogshield Campus Safety App](#) on your phone. (<https://police.tcu.edu/frogshield/>)

## COURSE SCHEDULE

This calendar represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunities. Such changes will be clearly communicated and updated on the course website. When in doubt, students should defer to the deadlines as set on the course website.

Date and Topic	Preparation / Reading Assignment (Other than the course text, all material is located in the corresponding module on the course site.)
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### *Module 1: What do we want to know? Setting up our research.*

1/10 Course Plan and Asking Research Questions	<b>Preparation / Reading Assignment</b> Kellstedt and Whitten Chpt 1 Powner “From Research Topic to Research Question”, p 1-15 Kevin Drum “Social Science is Hard” Mother Jones <a href="http://www.motherjones.com/kevin-drum/2012/07/social-science-hard">http://www.motherjones.com/kevin-drum/2012/07/social-science-hard</a>
1/12 Answering Questions and Building Theories: Structure and Answers	<b>Preparation / Reading Assignment</b> Kellstedt and Whitten Chpt. 2 and 3 Popper, Karl R. Science as Falsification. Conjectures and Refutations (1963)
1/14 LAB: Intro to R and RStudio	<b>Preparation / Reading Assignment</b> Lab 1 Handout
1/17	NO CLASS
1/19 Evaluating Causal Theories	<b>Preparation / Reading Assignment</b> Jim Goes and Marilyn K. Simon “Standards for Evaluating a Theory” excerpt from <i>Dissertation and Scholarly Research: Recipes for Success</i> , 2012 Edition, <a href="http://dissertationrecipes.com/wp-content/uploads/2011/04/Standards-for-Evaluating-a-Theory.pdf">http://dissertationrecipes.com/wp-content/uploads/2011/04/Standards-for-Evaluating-a-Theory.pdf</a>

### *Module 2: What do we have? Data and research design*

1/21 LAB: Data Introduction	<b>Preparation / Reading Assignment</b> Lab 2 Handout
1/24 Measuring Variables: Defining Concepts and Variation	<b>Preparation / Reading Assignment</b> Kellstedt and Whitten 6.1 - 6.2
1/26 Issues of Measurement: Concepts to Measure	<b>Preparation / Reading Assignment</b> Kellstedt and Whitten 5 Jose Antonio Cheibub, Jennifer Gandhi, and James Raymond Vreeland. Democracy and dictatorship revisited. Public Choice (2010): p. 67-101.



Seva Gunitsky. How do you measure democracy? The Monkey Cage.  
[https://www.washingtonpost.com/news/monkey-cage/wp/2015/06/23/how-do-you-measure-democracy/?utm\\_term=.5e51ba7d12aa](https://www.washingtonpost.com/news/monkey-cage/wp/2015/06/23/how-do-you-measure-democracy/?utm_term=.5e51ba7d12aa)

### Check-in Assignment 1 Due 1/26, 11:59PM CST

1/28 LAB: Recoding Variables	<b>Preparation / Reading Assignment</b> Lab 3 Handout
1/31 Research Design: Identifying Causality	<b>Preparation / Reading Assignment</b> Kellstedt and Whitten 4.1-4.2 * Basic Research Designs Center for Innovation in Research and Teaching (CIRT) Grand Canyon University. <a href="https://cirt.gcu.edu/research/developmentresources/tutorials/researchdesigns">https://cirt.gcu.edu/research/developmentresources/tutorials/researchdesigns</a>
2/2 Research Design: Experiments and Clinical Trials	<b>Preparation / Reading Assignment</b> Ritter, Joseph A. and David Beal. Detecting Racial Profiling in Minneapolis Traffic Stops: A New Approach CURA Reporter Summer/Spring 2009: 11-17
2/4 LAB: Transforming Variables	<b>Preparation / Reading Assignment</b> Lab 4 Handout
2/7 Research Design: Small- n Design and Observational Design	<b>Preparation / Reading Assignment</b> Kellstedt and Whitten 4.3 Bennett, Andrew. "Case study methods: Design, use, and comparative advantages." Models, numbers, and cases: Methods for studying international relations (2004): 19-55. Collier, David. "The comparative method." Political Science: The State of Discipline II, Ada W. Finifter, ed., American Political Science Association (1993).
2/9 Describing Data: Descriptive Statistics and Variation	<b>Preparation / Reading Assignment</b> Kellstedt and Whitten 6.3 - 6.6 * Descriptive Vs. Inferential Statistics: Know the Difference <a href="https://sciencestruck.com/descriptive-vs-inferential-statistics">https://sciencestruck.com/descriptive-vs-inferential-statistics</a>

### Check-in Assignment 2 Due 2/9, 11:59 PM CST

2/11 LAB: Univariate Graphs and Descriptive Statistics	<b>Preparation / Reading Assignment</b> Lab 5 Handout
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### Draft Research Project Proposal Due 2/11, 11:59PM CST

### *Module 3: What can we learn? Determining patterns in populations*

2/14	<b>Preparation / Reading Assignment</b> Wheelan, The Central Limit Theorem: The LeBron James of Statistics Naked Statistics, Chapter 8.
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Statistical Inference I:  
Using Data to Learn  
about the Population

Better Explained. A Brief Introduction to Probability and Statistics.  
<https://betterexplained.com/articles/a-brief-introduction-to-probability-statistics/>  
(Optional) Clive Thompson. The Surprising History of the Infographic. July 2016.  
Smithsonian Magazine. <http://www.smithsonianmag.com/history/surprising-history-infographic-180959563/?no-ist>

2/16

Statistical Inference II:  
Using Data to  
Investigate Theory

**Preparation / Reading Assignment**  
Kellstedt and Whitten Chpt. 7  
David M. Lane. Confidence Intervals on the Mean.  
<http://onlinestatbook.com/2/estimation/mean.html>  
John D. Cook. Why isnt everything normally distributed?  
<https://www.johndcook.com/blog/2015/03/09/why-isnt-everything-normally-distributed/>  
(Optional) Tall Life <https://tall.life/height-percentile-calculator-age-country/>

2/18

LAB: Bivariate Statistics

**Preparation / Reading Assignment**  
Lab 6 Handout

2/21

Confidence Intervals

**Preparation / Reading Assignment**  
How (not) to interpret confidence intervals <http://www.timvanderzee.com/not-interpret-confidence-intervals/>

**Check-in Assignment 3 Due 2/23, 11:59PM CST**

2/23

Margins of Error and  
Interpreting Polls

**Preparation / Reading Assignment**  
5 Key things to know about the margin of error in election polls  
<https://www.pewresearch.org/fact-tank/2016/09/08/understanding-the-margin-of-error-in-election-polls/>  
The margin of error: 7 tips for journalists covering polls and surveys  
<https://journalistsresource.org/studies/politics/ads-public-opinion/margin-error-journalists-surveys-polls/>  
When you hear the margin of error is plus or minus 3 percent, think 7 instead  
<https://www.nytimes.com/2016/10/06/upshot/when-you-hear-the-margin-of-error-is-plus-or-minus-3-percent-think-7-instead.html>

2/25

LAB: Review

**Preparation / Reading Assignment**  
Review Lab Handouts 1-6

2/28

Evaluating Continuous  
Distributions

**Preparation / Reading Assignment**  
What Is a t-test? And Why Is It Like Telling a Kid to Clean Up that Mess in the Kitchen? <https://blog.minitab.com/blog/statistics-and-quality-data-analysis/what-is-a-t-test-why-is-it-like-telling-a-kid-to-clean-up-that-mess-in-the-kitchen>  
Hypothesis Testing: Single Mean and Single Proportion  
<http://www.webassign.net/idcollabstat2/Chapter9.pdf>

3/2

Review Session

**Preparation / Reading Assignment**  
Lecture Notes and Activities

**3/4 Midterm**

3/7 Spring Break – NO CLASS  
 3/9 Spring Break – NO CLASS  
 3/11 Spring Break – NO CLASS

**Module 4: Is there a relationship? Associations between variables**

3/14 **Preparation / Reading Assignment**  
 Evaluating Categorical Distributions “Tutorial: Pearson’s Chi-square Test for Independence”  
<https://www.ling.upenn.edu/~clight/chisquared.htm>

3/16 **Preparation / Reading Assignment**  
 LAB: Bivariate Relationships Lab 7 Handout

3/18 **Preparation / Reading Assignment**  
 Logic of Bivariate Hypothesis Testing: t-tests and p-values Kellstedt and Whitten Chpt. 8  
 Jim Frost. How to correctly interpret p-values. 2014. page 8 of 10  
<http://blog.minitab.com/blog/adventures-in-statistics-2/how-to-correctly-interpret-p-values>  
 Describing Bivariate Relationships  
<http://ciosmail.cios.org:3375/readbook/rmcs/ch11.pdf>

3/21 **Preparation / Reading Assignment**  
 Bivariate Relationships: Covariation and Correlation IV. Describing Bivariate Data <http://onlinestatbook.com/chapter4/bivariate.html>  
 Guess the Correlation. <http://guessthecorrelation.com/>

3/23 **Preparation / Reading Assignment**  
 LAB: Bivariate Hypothesis Testing Lab 8 Handout

**Check-in Assignment 4 Due 3/23, 11:59 PM CST**

3/25 **Preparation / Reading Assignment**  
 Bivariate Regression Kellstedt and Whitten Chpt. 9

3/28 **Preparation / Reading Assignment**  
 Interpreting Regression Coefficients, I Regression Primer

3/30 **Preparation / Reading Assignment**  
 LAB: Bivariate Regression Lab 9 Handout

**Paper Proposal Due 3/30, 11:59PM CST**

4/1 Multiple Regression	<b>Preparation / Reading Assignment</b> Kellstedt and Whitten Chpt. 10.1-10.4, 11.1-11.2
4/4 Interpreting Categorical Independent Variables	<b>Preparation / Reading Assignment</b> Wheelan, Regression Analysis: The miracle elixir. Naked Statistics, Chapter 11. Regression Primer
4/6 LAB: Multiple Regression	<b>Preparation / Reading Assignment</b> Lab 10 Handout
4/8 Interpreting Regression Coefficients, II	<b>Preparation / Reading Assignment</b> Statistical vs. Substantive Significance Kellstedt and Whitten Chpt. 10.5-10.10 <a href="https://achimkemmerling.wordpress.com/2013/04/30/statistical-vs-substantive-significance/">https://achimkemmerling.wordpress.com/2013/04/30/statistical- vs-substantive-significance/</a> Presentation of Regression Results <a href="https://www.csus.edu/indiv/v/vangaasbeckk/courses/145/sup/regressionresults.pdf">https://www.csus.edu/indiv/v/vangaasbeckk/courses/145/sup/regressionresults.pdf</a>
4/11 Assumptions of Regression	<b>Preparation / Reading Assignment</b> Kellstedt and Whitten Chpt. 12
4/13 Presenting Regression Results	<b>Preparation / Reading Assignment</b> Regression Primer
<b>Check-in Assignment 5 Due 4/13, 11:59 PM CST</b>	
4/15	NO CLASS
4/18 Project Workshop	<b>Preparation / Reading Assignment</b> Poster Drafts
4/20 Review + SPOT Evaluation	<b>Preparation / Reading Assignment</b> Review Worksheets
4/22 Research Presentations	<b>Preparation / Reading Assignment</b> Audience feedback form
4/25 Research Presentations	<b>Preparation / Reading Assignment</b> Audience feedback form
4/27 Research Presentations	<b>Preparation / Reading Assignment</b> Audience feedback form

**Final Exam, 5/2, 11:00 – 1:30 PM CST**

**Research Paper Due, 5/5, 5:00PM CST**

## STUDENT PERCEPTION OF TEACHING (SPOT)

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Towards the end of the term you will receive an email asking to complete your SPOT for this course. I appreciate your thoughtful and reflective feedback to help make this course successful for future students. You can fill out the SPOT by clicking on the link in the email or in TCU Online when SPOTs open. The SPOT is the formal survey for this course and is used to make adjustments for future semesters.

## TCU MISSION STATEMENT

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To educate individuals to think and act as ethical leaders and responsible citizens in the global community.