*** Please read the syllabus carefully. It is a contract of ***
*** sorts, outlining your rights and responsibilities as ***
*** a student in this course. This is especially true during ***
*** the rapidly changing conditions resulting from the ***
*** COVID-19 pandemic. ***

Official U of U description: How to present and analyze data relevant to Family and Consumer Studies. Topics include means, standard deviations, T-tests, chi-square, ANOVA, regression analysis, correlations, and computer assignments.

Overview: The goal of this class is to teach you some of the statistical techniques often used by professional researchers. You learn to employ basic statistical techniques in support of a substantive argument; you will also have a better understanding of published quantitative research. This course should be viewed as a learner's permit to practice statistics, not an inoculation against future exposure to statistics.

What you'll learn: an introduction to quantitative data analysis.

What you'll get: four credits and fulfillment of a Department of Family and Consumer Studies requirement; the groundwork for a graduate-level introductory class in social statistics (e.g., FCS 5110/6110).

What's expected of you: scalar algebra (i.e., the kind you learned in high school) & reasonable familiarity with computers.

Instructor: Professor Nicholas H. Wolfinger (Nick to you)

Class times & location: ONLINE CLASS

Office hours: virtual office hours via Zoom by appointment.

E-mail: Nick.Wolfinger@fcs.utah.edu; I check constantly. Please email me here, not on Canvas.

Phone: (801) 581-7491 (office). I won't be in my office on account of COVID-19, so email is better.

Internet: Canvas, formerly Blackboard Vista, formerly WebCT. I will be posting homework and handouts here. **Do not attempt to**

contact me via Canvas--please use my email instead
(Nick.Wolfinger@fcs.utah.edu).

Things to get:

1) Please buy a dumb calculator for the exams. A dumb calculator
adds, subtracts, multiplies, divides, takes square roots, but
does nothing else. They can be purchased at the dollar store.

2) OPTIONAL: a flash drive (small is fine) may make some of the
computer work easier.

3) Books, & reading for this course:

A book isn't required for this course, but it's helpful to have
multiple introductory statistics texts on hand as a reference.

There is a high quality statistical textbook available as a [free
download](). You should all get it.

Here is another stats textbook that's free to [download]().

Another stats book I like is *Elementary Statistics in Social
Research*, 12th edition. Jack Levin, James Alan Fox, and David R.
Forde (Pearson Education Inc., 2013). ISBN-10: 0-205-84548-7.
Older editions are just fine, by the way. If you do buy this
book, I encourage you to buy it used on [Amazon](), [Barnes & Noble](),
or [ebay](). If you want to obtain it locally, try [KSL]().

Here are some other good stats books. An older edition is fine.
Other things being equal newer is generally better, but it's not
a big deal. Intro stats doesn't change too much.

Applied Statistics for the Social and Health Sciences, by Rachel
A. Gordon (ISBN-10: 0415875366)

Introduction to the Practice of Statistics, by David S.
Moore and George McCabe (ISBN-10: 1464158932)

Introductory Statistics, by Thomas H. Wonnacott and Ronald J.
Wonnacott (ISBN-10: 0471615188; older, but still good)
There is something to be said for having more than one stats
book. Sometimes one will offer just the right answer at just the
right time.

If you need more information about anything in particular, there
are many good resources on the Internet. Wikipedia has good

entries on all statistical concepts. Stata commands can be investigated by googling "COMMAND NAME Stata."

The U has free online tutoring for statistics and other subjects.

Low-cost paid tutoring is available via Marriott Library.

Another free resource is the Kahn Academy's statistics page. Kahn is a set of free video tutorials on a wide variety of topics. I urge you to visit their statistics page if you're confused about something.

I encourage you to read the first two chapters of the openstax free download text. It will provide useful background. Thereafter, consult a text to firm up your understanding of difficult concepts. Aside from the introductory material, it's hard to read a stats textbook. Instead, treat it as a reference.

Grades: Homework (50%), midterm (20%), presentation (5%), final (25%)

Grades will be curved--but only to your benefit-—and based on the following scale:

A	93%+	A-	90%-92%	B+	86%-89%
B	83%-86%	B-	80%-82%	C+	77%-79%
C	73%-76%	C-	70%-72%	D+	67%-69%
D	63%-66%	D-	60%-62%	E	< 60%

One point of extra credit for completing both statistics anxiety assignments!

<u>What are these things I have to do?</u>

<u>Homework</u>: You will receive ten homework assignments via Canvas (for some unknown reason, Canvas refers to homework as "quizzes.") Each of the eleven course units requires a homework assignment, except for Unit 6 (which is the week of the midterm). Your lowest homework grade will be discarded at the end of the semester (In other words, there is one assignment you need not complete.) Some homework will require use of statistical software called STATA.

<u>Presentation</u>: The presentations will begin on Monday, October 12, and run for the rest of the semester. Sign up on Doodle

for your four to five minute presentation (or a little longer, if you need the time). For your security, I encourage you to sign up for a Doodle account (it's free). After you schedule a date, please submit your presentation up to one week before the scheduled date—-and no later than the end of the scheduled date--by uploading to YouTube, then submitting the link on Canvas. Make sure you change the privacy settings. I encourage you to set it to "unlisted." This way people will only be able to see the video if you provide its URL. Finally, presi.com seems to be an easy way of constructing your presentations, but use other tools if it's better for you.

You will be required to present the quantitative findings from an article in a newspaper or magazine, website, scholarly journal, or book. Tell the class what the article or book is about, present data, and offer your opinion as to whether you're convinced. Film yourself, your data, or both--be creative if you want--then upload to YouTube. Presentations are graded on a pass/fail basis; in other words, you need only do one to get all points. More information on the presentations will be provided when the time comes.

Tests: Owing to COVID-19, the midterm and final will be completed via Canvas and ProctorU, a service that allows you to take proctored exams remotely. You'll have to show an ID to take the test.

You can use one letter-sized page of notes (double-sided, hand-written or typed) during the exams. You can also use a dumb calculator. A dumb calculator is one that is limited to addition, subtraction, multiplication, division, and square roots. You may not use your phone as a calculator. Each exam will be on Canvas and password-protected. You will need your student ID to take your exams. You will have 120 minutes to finish each exam.

You must speak with me before the scheduled date if you anticipate missing an exam. Retroactive (i.e., after the exam) notification is acceptable only if you or an immediate family member is in the hospital or in jail. Should either be the case please provide written documentation.

Finally, if you're having trouble scheduling a test, contact the U's office of Teaching & Learning Technologies (801-581-6112, option 3).

COURSE SCHEDULE

Unit 1 (8/24)   Sampling & data

Unit 2 (8/31)   Descriptive statistics

Unit 3 (9/7)   The standard deviation & the standard
normal

Unit 4 (9/14)   Hypothesis testing with one sample

Unit 5 (9/21)   Confidence intervals & two sample tests

Unit 6 (9/28)   Bivariate Analysis by Graphing Data

MIDTERM (9/28-10/5)

Unit 7 (10/12)   Analyzing Nominal or Ordinal Variables:
                             The Cross Tabulation

Unit 8 (10/22)   Correlation & Linear Regression Part 1

Unit 9 (11/2)   Regression Part 2: Just How Good is
                             That Slope?

Unit 10 (11/12)   Regression Part 3: ANOVA, Assumptions,
                             More on Lowess

Unit 11 (11/23)   Regression Part 4: Multiple Regression,
                             Dummy Variables

FINAL (12/7 - 12/11)

HOW IT WORKS: You'll have a week to complete Units 1-6, and ten
or eleven days for Units 7-11 (this insures each unit starts on
either a Monday or a Thursday). Units can be accessed in one of
two ways: 1) A video presentation; 2) A PowerPoint file with
embedded audio (click on the speaker icon). I prefer the
PowerPoint, as it lets you move at your own pace.

Each unit has a homework assignment, except Unit 6 (so you can
review for the midterm instead). I'll provide practice problems
prior to each test, as well as a study guide.

Software

Several assignments will require the use of statistical software. The software of choice is STATA. It is available on CSBS lab computers, or remotely via this link. Log in using your University of Utah ID and password. You will be required to download and install the Citrix app. To the best of my knowledge you need an actual computer, not a tablet or phone. For a tutorial on how to access CSBS software remotely, go here.

Remote access requires some understanding of computers. I can't help with this part, as everyone has different hardware and operating systems. Instead, it's the job of CSBS Computing (801-585-8985) to help people use their software. Save the STATA questions for me. Call them up and stay on the phone until your data is open in STATA.

STATA may be easier to use if you save data files on your own flash drive, but it's not mandatory. Finally, you are free to buy a copy of STATA. If you do so, don't get Small STATA. You are free to use any other statistical software, but it also will not be supported.

I'll post handouts providing STATA hints as the semester progresses.

Don't have a computer? The Marriott Library is offering 1,000 laptops to students for free semester-long loans. For more information, go here.

WHO HELPS WITH WHAT

PROBLEM: Canvas is giving me grief.

SOLUTION: Contact Teaching & Learning Technologies at (801) 581-6112.

PROBLEM: I can't get STATA to run.

SOLUTION: Contact CSBS Computing at (801) 585-8985.

PROBLEM: I can't read data into STATA, or run data analysis in STATA.

SOLUTION: Email me at Nick.Wolfinger@fcs.utah.edu. It's CSBS Computing's job to help you access their software (i.e., STATA), but my job to help you use it.

IMPORTANT NOTICES

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The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations.

All written information in this course can be made available in alternative format with prior notification to the Center for Disability Services.

In accordance with the University accommodations policy no accommodations for content will be given. If you're curious about what this means, see section 6-100(Q) of the University of Utah's regulations library.

University drop and withdrawal policies: You may *drop* this class without penalty or permission until Friday, August 28. You can *withdraw* from the course without permission until Friday, October 16, but a "W" will be recorded on your academic record, and applicable tuition and fees will be assessed. After that you will not be allowed to withdraw from this course. If you have any questions regarding this policy, please contact the Office of Admissions and Registrar at (801) 581-5808.

THE RIOT ACT

Academic honesty: All honesty and plagiarism policies established by the University of Utah will be upheld in this class. Academic misconduct includes, but is not limited to, representing another's work as your own, collaborating on individual assignments, and submitting the same work for more than one course without the permission of both instructors. None of these actions will be tolerated.

If it is discovered that you have engaged in academic misconduct of any type in this course, the Family & Consumer Studies departmental policy states that you must be given a failing grade in the course and be reported to the Dean and the VP for Academic Affairs, who will keep your name on record. Should you be reported more than once, you may face expulsion from the University.

For further information about the University of Utah's policies regarding academic misconduct, please refer to the Student Handbook.

Scheduling accommodations: You should register only for those courses for which you have no scheduling conflicts that will interfere with your ability to complete course requirements. If you must be absent to participate in officially sanctioned University activities (e.g. band, student government, intercollegiate athletics), religious holidays, or other obligations meeting with the instructor's approval, you will be permitted to make up or otherwise receive credit for missed assignments or exams.

Grade challenges: If you disagree with the way any test or assignment has been graded, you can make a challenge in writing. Challenges must be typed and submitted to the instructor no later than one week after exam/homework has been returned. Your challenge should explain why you disagree with the way the question was graded, and must include page numbers and/or specific references to course contents or text(s) justifying your disagreement.

General

1) Unless otherwise notified there are no extra credit assignments. Please don't ask.

2) The schedule of readings, assignments, tests, and topics may change. I will announce any changes in class and via Canvas. You are responsible for being aware of them.

3) I reserve the right to give pop quizzes at any time.

4) Assignments arriving at any time between the due date and the end of the universe are subject to arbitrary and severe penalties.

STATEMENT OF BASIC NEEDS

Any student who has difficulty getting enough to eat every day, lacks a safe place to live, or faces unjust deportation is living with hardship that may make it difficult to excel in this course. If any of this is the case, you are urged to contact the Dean of Students for support. Furthermore, please notify me if you are comfortable in doing so, and I'll help however I can.

For information about public resources in the Salt Lake area, go here. The University of Utah maintains a food bank where students & other members of the campus community can get free food if they need it.

STUFF THE UNIVERSITY MAKES ME INCLUDE

COVID statement

If you test positive for COVID at any point while a student, faculty, or staff member at the University of Utah, you are required to report it [here](). Also, please notify me ASAP.

Based on CDC guidelines, the University requires everyone to wear face coverings in shared public spaces on campus, including in classrooms. As a reminder, when I wear a face covering, I am protecting you. When you wear a face covering, you are protecting me and all of your classmates. If you repeatedly fail to wear a face covering in class, your professor will refer you to the Dean of Students for a possible violation of the Student Code. Note that some students may qualify for accommodations through the Americans with Disabilities Act (ADA). If you think you meet these criteria and desire an exception to the face covering policy, contact the Center for Disability and Access (CDA). Accommodations should be obtained prior to the first day of class so your instructor is notified by CDA of any students who are not required to wear a face covering.

Non-COVID safety statement

The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, go [here]().

Statement about how awesome the U is

As the only institution in the state classified in the highest research category (R1), at the University of Utah you will have access to state-of-the-art research facilities and be able to be part of the knowledge creation process. You will have the opportunity to do research of your own with faculty who are leading experts in their field, engaging in programs that match your research interests. Further, you will interact with and often take classes with graduate students that provide an advanced understanding of the knowledge in your field.