

FCS 3210 (FCS Statistics)

*** Please read the syllabus carefully. It is a contract of sorts, outlining your ***
*** rights and responsibilities as a student in this course. ***

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.

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).

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

Instructor office: 256 AEB

E-mail: Nick.Wolfinger@fcs.utah.edu; I check constantly

Phone: (801) 581-7491 (office). I will only be in my office during office hours, so email is better.

Mailbox: 228 Alfred Emery Building, the Department of Family and Consumer Studies office. If turning in an assignment make sure to sign the receipt verification log (ask at office).

Internet: Canvas, formerly Blackboard Vista, formerly WebCT. I will be posting homework and handouts here, but probably won't use this for anything else. Do not attempt to contact me here, or expect me to respond to your posts.

Book:

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. Required. I encourage you to buy your book used on <http://www.amazon.com> or <http://www.half.ebay.com/>. Either will probably be cheaper than the campus bookstore.

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

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

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

What are these things I have to do?

Homework: Most weeks you will receive a homework assignment. Please check Canvas after every class to see if a new assignment has been added. If so, complete the assignment and turn it in during class on the designated day. Your lowest homework grade will be discarded at the end of the semester (in other words, there is one assignment you need not complete).

Presentation: The presentations will begin on xxxxxx, and run for the rest of the semester. Sign up on Doodle for your three to five minute presentation. For your security, I encourage you to sign up for a Doodle account (it's free). I encourage you to sign up early; if you delay, you may not be able to schedule a presentation—and you won't get the points.

You will be required to present the quantitative findings from an article in a newspaper or magazine, 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. Presentations are graded on a pass/fail basis; in other words, you need only do one to get all points.

Paper: One of the goals of the course is to teach you to use quantitative data in support of a substantive claim. Accordingly, you will write a short paper based on your own analysis of quantitative data. The structure and contents of the paper will be discussed extensively in class.

The paper assignment provides the opportunity to apply a specific statistical technique, or collection of techniques, to a real substantive problem and real data. Your goal is to write an abbreviated research paper that provides both a substantive framework and the results of data analysis. I will supply you with a variety of small data sets. Choose one for your paper. You may use your own data from the General Social Survey or comparable national data set, but this must be cleared with me. Otherwise, your paper must adhere to the following guidelines:

- 1) It must be a maximum of four pages of double spaced, twelve point text, with one inch margins. Do not right justify margins. Use only one side of the page. Do not right justify. Single side of the paper only. Number pages. Avoid binders, sheet protectors, and so on. Cover pages, reference pages, tables, figures, and so forth don't count against the page limit.
- 2) Your paper must contain the elements of a real research paper: an introduction, in which you set up the problem; a paragraph or two devoted to data and methods; a results section; a conclusion. Cite at least two sources (journal articles, books, etc.)
- 3) Please cite your sources using a standard reference convention: ASA, APA, MLA, etc.

Not to worry if much of this sounds vague. We'll be discussing the paper in class.

COURSE SCHEDULE

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|-------------|--|--------------|
| Week 1 | Introduction, central tendency | chap 1, 2, 3 |
| Week 2 | Visualizing data | chap 2,4 |
| Week 3 | More visualizing data, lowess | chap 5 |
| Weeks 4-5 | Populations, samples, & the standard error | chap 6 |
| Weeks 6-7 | t-tests | chap 7 |
| Weeks 8-9 | Cross tabulation and chi-square tests | chap 2, 9 |
| Week 10 | Correlation | chap 10 |
| Weeks 11-14 | Regression and extensions | chap 11, 8 |
| Week 15 | Test selection, summary, review | chap 13 |

How to read for this course

Unfortunately the chapters in the textbook aren't discrete, and won't always perfectly correspond to the lectures. My suggestion is to read selectively after the lectures to firm up what you've learned in class. This is somewhat less true for the first chapters, which are more introductory in nature. Thus I encourage you to read these in full.

Software

Most assignments, including the paper, will require the use of statistical software. The software of choice is Stata (www.stata.com). It is available CSBS lab computers. I encourage you to use it there, as it's less complicated. You may also access it remotely, at <https://apps.csbs.utah.edu/Citrix/XenApp/auth/login.aspx>. Log in using your University of Utah ID and password. Remote access requires some understanding of computers, so it will not be supported in class (in other words, you're on your own). You are free to use any other statistical software, but it also will not be supported.

IMPORTANT NOTICES

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.

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 (except the paper), 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 from a specific class 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/paper/homework has been returned. Your challenge should explain why you disagree with the way the question/paper was graded, and must include page numbers and/or specific references to lecture or text justifying your disagreement.

Exams

- 1) 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.
- 2) Space allowing, please sit every other seat during exams.
- 3) Do not wear headphones during exams.
- 4) No smart phones allowed during exams. However, you'll want a dumb calculator.
- 5) Please remove course materials (papers, books, etc.) from your desk during exams. Other stuff (tissues, food, etc.) is fine.
- 6) Please retain all returned tests and papers.

Papers and homework

- 1) It is fine (and even recommended) to work together while doing your research papers. All that I ask is that you write your own paper.
- 2) Turn in your paper on or before the listed due date in class or at the FCS main office (228 Alfred Emery Building) by 4:00pm. Don't fax or e-mail them to me. Don't put them under my office door. Don't nail them to the wall.
- 3) Papers arriving at any time between the due date and the end of the universe are subject to arbitrary and severe penalties. Homework arriving after the due date will not be accepted.
- 4) Do not submit materials written for other classes without first discussing it with me.

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 e-mail or Canvas. You are responsible for being aware of them.
- 3) Unclaimed assignments and tests will be thrown away on xxxxxx.
- 4) I reserve the right to give pop quizzes at any time.