ECON 7590 - Econometrics
Fall 2019
Monday & Wednesday, 1:25pm - 2:45pm, MLIB 1008
3 Credit Hours
Prerequisites: Matrix algebra, Calculus, Optimization methods

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Course description
The purpose of this course is to provide a graduate level introduction to mathematical statistics and linear regression for cross-section data analysis.

Course objective
This course will prepare you for ECON 7800 that explores applied topics for using linear regression using cross-section and panel data.

Suggested textbooks

Topics
- Statistical theory
  - Probability theory (Week 1 - 2)
  - Distribution of random variables (Week 3)
  - Moments of random variables (Week 4)
  - Properties of random sample (Week 5)
  - Point and interval estimation (Week 6)
- Hypothesis testing (Week 7)

- Cross-section regression analysis
  - Classical linear regression & properties of OLS (Week 8 - 10)
  - Hypothesis testing (Week 11 - 13)
  - Qualitative explanatory variables (Week 14 - 15)

Grading policy

- Exam 1 on 2nd October 2019: 50% weight
- Exam 2 on 2nd December 2019 : 50% weight

Letter grade scale

- A $\geq$ 93%, 93% > A- $\geq$ 90%
- 90% > B+ $\geq$ 87%, 87% > B $\geq$ 83%, 83% > B- $\geq$ 80%
- 80% > C+ $\geq$ 77%, 77% > C $\geq$ 73%, 73% > C- $\geq$ 70%
- 70% > D+ $\geq$ 65%, 65% > D $\geq$ 60%, 60% > D- $\geq$ 50%
- 50% > E

Notes

- We will use the software STATA for the applied exercises in this course. I will introduce you to the software and also give you a brief reference guide on the most common commands. You will have access to STATA through the university lab computers or you can purchase a student version of the software.

- I will provide practice problem sets. You are encouraged to work in groups. The solutions will be discussed in class.
• The exams must be taken at the scheduled time. When a student has a legitimate (documented) reason for missing one of the exams, the weight of the missed exam will be transferred to the other exam. No make-up exams are given.

• Incompletes are not generally given for non-medical reasons.

• If you have any question regarding your grade, you must ask within a week from the day the grades are posted on canvas. No exceptions to this rule will be entertained.

• This syllabus is meant to serve as an outline and guide for the course. Please note that I may modify it with reasonable notice to you. I may also modify the schedule to accommodate the needs of the class. Any changes will be announced in class and posted on Canvas under Announcements.

• All students are expected to abide by the academic code of conduct as laid out by the university: https://regulations.utah.edu/academics/6-400.php

Wellness Statement

Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student’s ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness - www.wellness.utah.edu; 801-581-7776.

Addressing Sexual Misconduct

Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran’s status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or the Office of the Dean of Students, 270
Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).

**Student Names & Personal Pronouns**

Class rosters are provided to the instructor with the student’s legal name as well as 'Preferred first name' (if previously entered by you in the student profile section of your CIS account). While CIS refers to this as merely a preference, I will honor you by referring to you with the name and pronoun that feels best for you in class, on papers, exams, group projects, etc. Please advise me of any name or pronoun changes (and update CIS) so I can help create a learning environment in which you, your name, and your pronoun will be respected.

**LGBT Resource Center**

If you are a member of the LGBTQ community, I want you to know that my classroom is a safe zone. Additionally, the U of Utah has an LGBT Resource Center on campus. They are located in Room 409 in the Oplin Union Building. Hours: M-F 8-5pm. You can visit their website to find more information about the support they can offer, a list of events through the center and links to additional resources: http://lgbt.utah.edu/. Please also let me know if there is any additional support you need in this class.

**Americans with Disabilities Act (ADA) Statement**

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

(www.hr.utah.edu/oeo/ada/guide/faculty/)

**Veterans Center**

If you are a student veteran, the U of Utah has a Veterans Support Center located in Room 161 in the Olpin Union Building. Hours: M-F 8-5pm. Please
visit their website for more information about what support they offer, a list of ongoing events and links to outside resources: http://veteranscenter.utah.edu/. Please also let me know if you need any additional support in this class for any reason.

Safety on Campus

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, visit safeu.utah.edu
CSBS EMERGENCY ACTION PLAN

BUILDING EVACUATION
EAP (Emergency Assembly Point) – When you receive a notification to evacuate the building either by campus text alert system or by building fire alarm, please follow your instructor in an orderly fashion to the EAP marked on the map below. Once everyone is at the EAP, you will receive further instructions from Emergency Management personnel. You can also look up the EAP for any building you may be in on campus at http://emergencymanagement.utah.edu/eap.

CAMPUS RESOURCES
U Heads Up App: There’s an app for that. Download the app on your smartphone at alert.utah.edu/headsup to access the following resources:

- **Emergency Response Guide**: Provides instructions on how to handle any type of emergency, such as earthquake, utility failure, fire, active shooter, etc. Flip charts with this information are also available around campus.
- **See Something, Say Something**: Report unsafe or hazardous conditions on campus. If you see a life threatening or emergency situation, please call 911!

**Safety Escorts**: For students who are on campus at night or past business hours and would like an escort to your car, please call 801-585-2677. You can call 24/7 and a security officer will be sent to walk with you or give you a ride to your desired on-campus location.