

# ECNS 403 - Introduction to Econometrics

## Course Information

Class times: Tuesdays & Thursdays 12:30-2:20 PM

Classroom: Fine Arts (FA) 210

## Instructor Information

Instructor name: Helen Naughton, Ph.D.

Instructor email: [helen.naughton@umontana.edu](mailto:helen.naughton@umontana.edu)

Instructor office: Liberal Arts (LA) 403

Instructor office hours: Tuesdays & Thursdays 11-12 and by appointment.

## Teaching Assistant (TA) Information

TA name: Madison Nagle

TA email: [madison.nagle@umontana.edu](mailto:madison.nagle@umontana.edu)

TA office: Liberal Arts (LA) 410

TA office hours: Mondays 12:30-2, Wednesdays 9:30-11 & Fridays 8-9:30

## Course Relevance

Economics is different from physical sciences in one important aspect—most of our data come from the real world rather than from laboratory experiments. Dealing with data-problems inherent in the real world data is the main reason why econometrics is a necessary component of any economist's toolkit. The focus of this course is the application of multivariate regression analysis.

## Learning Outcomes

1. Explain the role of regression analysis in testing economic theories.
2. Distinguish between multivariate and simple regression analysis.
3. Explain why simple regression is often insufficient in economic applications.
4. Use the Stata program to enter data and run regressions.
5. Interpret estimated regression results.
6. Perform hypothesis testing given a set of regression results.
7. Understand the role of classical assumptions in regression analysis.
8. Describe detect, and correct for three common violations of classical assumptions.

## Course Materials

- A highly recommended course textbook: Studenmund, A.H. (2011). *Using Econometrics: A Practical Guide*, 6th ed., Pearson.
- There is one book available for student use on 2-hour reserve at the library.
- Stata software available in the computer lab and for purchase online: <https://www.stata.com/order/new/edu/gradplans/student-pricing/>
- **Non-graphing calculator** for exams.
- At the minimum, the course will cover the following chapters in order: 1-10. Look on Moodle for progress through chapters.

## Moodle and Email

I will use Moodle ([moodle.umt.edu](http://moodle.umt.edu)) to post course materials (including datasets for homework), conduct surveys, make announcements and send emails. Please make sure that you have set up your email account so that you are receiving the emails sent to your [firstname.lastname@umontana.edu](mailto:firstname.lastname@umontana.edu) address. Check Moodle and your email often to make the most of the information there.

## Grading Policy

I will not use +/- grading.

A=100%-90%, B=89%-80%, C=79%-70%, D=69%-60% and F=59% and below.

### *Undergraduate students*

30% - 5 best Homework scores (6% each)

40% - Two midterm exams (20% each): **Oct. 5, Nov. 9**

30% - Cumulative final exam: **Thursday, Dec. 14, 3:20-5:20** in regular classroom

### *Graduate students*

20% - Graduate student project

15% - 5 best Homework scores (3% each)

40% - Two midterm exams (20% each): **Oct. 5, Nov. 9**

25% - Cumulative final exam: **Thursday, Dec. 14, 3:20-5:20** in regular classroom

## Graduate Increment

Graduate students in this course must complete a term-long independent econometrics project. Additional information about this assignment will be provided. Occasional meetings outside the regular class with the graduate cluster are required.

## Homework

There will be 6 homework assignments with datasets on Moodle. You are encouraged to discuss homework with fellow students but each student must type up their own assignment using their own words. A paper-copy of the homework assignment must be handed in at the time specified on the assignment and late homework will be marked down 50%. A homework assignment will be considered late once we have started grading the other students' assignments. **No late assignments are accepted after the answer key is posted.**

## Excused Absences

According to the University of Montana Academic Policies and Procedures, excused absences include illness, injury, family emergency, military service, mandatory public service, religious observance or participation in a University sponsored activity. University sponsored activities include for example, field trips, ASUM service, music or drama performances, and intercollegiate athletics.

### Midterm Exams

There will be two midterm exams. If you must miss an exam due to an excused absence (see list above), please contact the instructor before the exam as early as possible to make arrangements for an early exam. **No makeup midterm exams** will be given, even in the case of an excused absence. If you miss an exam due to an unforeseen emergency, contact the instructor as soon as possible. A missed midterm exam due to an excused absence will be accommodated by placing the weight of the midterm on the final exam. It is better to come to the exams late rather than not at all. Bring a **non-graphing calculator**. The use of cell phones and other smart gadgets is not allowed.

### Final Exam

The final exam is cumulative and **replaces your lowest midterm exam grade if it improves your course grade**. The consequences of a missed final exam due to an excused absence will depend on how long it takes you to contact the instructor after the exam has concluded. It is better to come to the exams late rather than not at all. Bring a **non-graphing calculator**. The use of cell phones and other smart gadgets is not allowed.

### Academic Dishonesty

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students must be familiar with the Student Conduct Code. The Code is available for review online at:

<http://www.umt.edu/vpesa/Dean%20of%20Students/default.php>

### Disabilities

If you have a documented disability, which requires special arrangements, please inform the instructor during the first two weeks of classes and contact the University of Montana Disability Services for Students (DSS) at Lommasson Center 154 by calling 243-2243.