# **Econ4261 - Introduction to Econometrics**

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### 1 Course Information

### 1.1 Class Times

Tuesdays and Thursdays, 8.15am-9.30am, Blegen Hall 145

#### 1.2 Your Instructor

- Joseph Mullins
- mullinsj@umn.edu (use ECON4261 in subject)
- Office Hours: Fridays 10am-12pm on zoom. Please check Canvas for a link to sign up.

#### 1.3 Important Dates

Date	Event
January 25	Assignment 1 due
February 15	Assignment 2 due
February 29	Midterm (in class)
March 21	Assignment 3 due
April 11	Assignment 4 due
April 25	Assignment 5 due
April 23	Groups 1, 2, and 3 present Group Project
April 25	Groups 4 and 5 present Group Project
May 5	Individual writeups for group project due
May 7	Final Exam (10:30am - 12:30pm, Blegen 145) see the schedule

## 2 Course Description

Economics provides a far-reaching theoretical toolkit for understanding the world around us. Econometrics is a discipline that studies how to test and quantify these theories. It draws from probability, statistics and economics in equal measures to achieve this.

In this course you will learn the most important econometric tools both in theory and practice by working with data in the R programming language. We will emphasize throughout the importance of economic theory when interpreting data.

It is important to highlight that this is a mathematics and statistics intensive course and students should be comfortable with the material in the enrollment prerequisites (Econ 3101, Math 1271/2, Math 2243, Math 2263, Stat 4/5101/2).

### 3 Assessment

Assessment	Weight
Assignments	40% total, the lowest grade of 5 will be dropped.
Midterm	20%
Final	20%
Group project	20% total

#### 3.1 Homework Submission Guidelines

It is your responsibility to submit neat and legible solutions to the homeworks. Your TA may deduct marks for illegible submissions. Please follow these guidelines:

- All homework assignments must be submitted as a Quarto or R notebook rendered as an html or pdf, with code and output showing all required results. You will be introduced to these notebooks through recitation materials.
- For questions requiring mathematical solutions, you may submit handwritten solutions if you prefer, but they *must* be submitted as a pdf using a scanner or scanning app on your phone.

### 4 Supplemental Material

Here is a link to lecture videos I recorded in Spring 2021. You may find them useful but please be warned that the course has changed and they are *not a substitute* for attending lectures.

#### 5 Statistical Software

We apply the methods we learn in the course to data using R, a free and open source statistical software package. Students are encouraged to download and install RStudio, which provides a graphical interface with R.

Download RStudio here: https://www.rstudio.com/products/rstudio/download/

Find the user guide here: https://cran.r-project.org/doc/manuals/r-release/R-intro.pdf

I will provide lots of example code to help students learn how to use this language.

Additional Resources for R, RStudio, and the "tidyverse" libraries I have tried to make materials for learning R in this course self-contained, but if you need a little extra help, I recommend chapters (1)-(4) of this free online book. You can find more helpful resources here.

#### 6 Policies and Procedures

Please review the University's Policies and Procedures.