Welcome to your first course in econometrics!

Q: Wait! What is econometrics?

Definition

Econometrics is the science of using economic theory and statistical techniques to analyze economic data.

Econometrics is a fun combination of economics, data, statistics, math, and coding

Econometrics gives you skills that are rewarded in the workplace (private banks, central banks, consulting firms, insurance companies, government agencies all have big teams of econometricians trying to make sense of a broad array of data)

Econometrics can be quite mathematical, but this semester I will focus on the big ideas and the important concepts and intuition

But before we get started with metrics, let's first briefly discuss ...

Academic Staff

You can seek help on matters *academic* from

- your friendly lecturer: Juergen Meinecke (me!)
- your friendly tutors:
  - Pyan Muchtar
  - Xinzhen Zhang
  - Anggita Utomo

We'll be nice to you!

Please be nice to us!

Weekly meetings

Every week you can find us at the following events

- two hours combined lecture/workshop (Wednesdays)
  yep, will be recorded and go up on Wattle
- one hour computer lab (small group across Thu/Fri)
  using Python for econometric data analysis
  nope, not recorded

Ideally you supplement this with 6-8 hours of private study (also every week)

Weekly meetings: Lectures/workshops

The Wednesday sessions will have two parts (roughly split 50-50):

1. first hour: lecture
   selection of the weekly lecture material
   material not covered is left for self-study
2. second hour: workshop
   covering analytical exercises that require math

I expect you to read the weekly lecture notes **ahead of time**

The lectures will be fast paced

Feel free to tell me ahead of time about the bits/pieces of lecture material that you would like me to focus on

You can make a difference! Guide me towards your priorities!

Weekly meetings: Computer labs

These are small group sessions scattered across Thursday and Friday

We'll use economic data sets to do applied econometric analysis

You will learn how to code in Python using Jupyter

You don't need to know what this means! We'll teach you! (Yey!)

At the end of the semester you can add "*fluent in Python*" to you CV

We recommend that you bring your own device (eg, tablet or laptop) to the weekly labs and do the coding on your own device
(we'll explain how to get Python-ready soon!)

Weekly meetings: Computer labs (continued)

There are a total of five labs every week

Four of these labs are held in regular tutorial rooms and require students to bring their own devices!

We understand that not every student may be able to provide their own device

For those students we have a dedicated lab session that takes place in COP G025 (which is a proper computer room):

- Fri 11am at COP G025

(Students who bring their own devices are welcome there as well!)

Getting Python Ready

We will be using Python for our applied data work

We interact with Python through so-called `Jupyter notebooks`

Jupyter notebooks are a convenient way of

- writing and running Python code
- inserting formatted text
- adding tables and figures
- writing mathematical formulas

Best of all: You can set this up for free, either on your own computer or via your web browser!

How can you set this up? Two options...

Getting Python Ready (continued)

1. Anaconda
    - If you're the type of person who likes installing and managing programs on their own device
    - Anaconda describes itself as *the world's most popular open-source Python distribution platform*
    - Anaconda makes it easy for you to install a bunch of Python related packages on your own computer and run code in no time
2. Google Colab
    - With Colab you are essentially running Python in a web browser on a remote (cloud) computer provided by Google
    - For small applications (such as ours) this is free of charge, but you do need a Google account
    - Because it is cloud-based, you can run code in many different ways: your laptop or desktop, the uni computers, your iPad or mobile phone, my old Commodore 64

Getting Python Ready (continued)

Your homework for week 2:

We need you to get Python-ready for the computer labs

For this to work as smoothly as possible we need you to follow the steps under '*Get Python-ready!*' on my Github website

It's easy to do, but takes a little bit of time

On my website, we guide you through two options:

- installing Anaconda on your own laptops; or
- setting up Google Colab through a web-browser

Do this soon!
(definitely before attending your first computer lab)

Assessments

There are four assessment items

1. quizzes
   four quizzes counting 5% each in weeks 3, 5, 9, and 12
2. computer assignments
   two assignments counting 7.5% each due in weeks 6 and 11
   (these require Python coding)
3. participation
   your participation during weekly small group labs, counting 5%
4. final exam
   in-person, counting 60%

Contact and Consultation

Please send emails to the functional account

EMET2007@anu.edu.au

(also use this if you are EMET4007 or EMET6007)

I'm checking it frequently

I'll announce consultation times and locations in next week's lecture

Github Website and Wattle

Weekly lecture slides, workshop exercises, computer lab exercises, and assignments are available on my Github website:

`https://juergenmeinecke.github.io/EMET2007`

I use Wattle for

- course announements (should pop up in your email as well)
- Echo recordings appear there automatically after every Wednesday session
- quizzes are multiple choice tests run on Wattle
- you will need to upload your solution to the assignments