

# Math Camp for Economists: Introduction

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# Land acknowledgement

I acknowledge and respect the Lekwungen peoples on whose traditional territory the University of Victoria stands, and the Songhees, Esquimalt, and WSÁNEĆ peoples whose historical relationships with the land continue to this day

This will be somewhat common at UVic. If it is unfamiliar or uncomfortable to you, I invite you to ask me or the faculty about it, or (even better): look up the history of these nations on this land

Lots of people work as 'analysts' of some sort:

- Academic economists
- Government economists
- Bankers
- Consultants
- Policy analysts
- Etc.

Any person who conducts any sort of statistical or econometric analysis, and even anyone who reads or summarizes such analyses, requires a firm understanding of mathematical and statistical concepts to be competent and credible

# Math Camp for Economists

- Brand new course at UVic Economics
- Designed to ensure you're not unfamiliar with the math you'll be expected to know
  - Nearly 25% of graduate students failed econometrics last year. Don't let this happen to you
- Will be difficult for most of you. Better to struggle with it now than during your other courses
- Will feel easier to some of you. Excellent! Ensure you aren't over-confident
  - Check out [Chris Shannon's notes](#) (UC Berkeley Math Camp) if you want to go deeper
- Will entail a lot of lecturing and a lot of group exercises (including lab work)
- A good resource: Mathematics for Economists (Simon and Blume)

## 2023 MATH CAMP SCHEDULE

DATE	TIME	ROOM
Monday, August 21	9:00 AM – 12:00 PM; 1:00 – 4:00 PM	DSB C128 & DSB C130
Tuesday, August 22	9:00 AM – 12:00 PM; 1:00 – 4:00 PM	DSB C128 & DSB C130
Wednesday, August 23	9:00 AM – 12:00 PM; 1:30 – 4:30 PM	DSB C128 & DSB C130
Thursday, August 24	9:00 AM – 12:00 PM; 1:00 – 4:00 PM	DSB C128 & DSB C130
Friday, August 25	9:00 AM – 12:00 PM; 1:00 – 4:00 PM	DSB C128 & DSB C130
Tuesday, September 5	2:15 – 5:15 PM	DSB C128 & DSB C130
Wednesday, September 6	9:00 AM – 12:00 PM; 1:00 – 4:00 PM	DSB C128 & DSB C130
Thursday, September 7	9:00 AM – 12:00 PM; 1:00 – 4:00 PM	DSB C128 & DSB C130
Friday, September 8	9:00 AM – 12:00 PM; 1:00 – 4:00 PM	DSB C128 & DSB C130
Monday, September 11	1:00 – 4:00 PM	DSB C128 & DSB C130
Tuesday, September 12	1:30 – 4:30 PM	DSB C128 & DSB C130
Wednesday, September 13	1:00 – 4:00 PM	DSB C128 & DSB C130

Over 20 three-hour sessions (often two per day) we're going to rigorously cover:

- Set theory, probability spaces, statistical independence, and random variables
- The expectation operator, population parameters, samples statistics, estimators, and bias
- The simple regression model and the assumptions behind it
- Matrix algebra, matrix calculus, and OLS in matrix form
- Constrained optimization

Approximately half of this time will involve you completing exercises. You should also plan to work on your own each evening to review the material

- Justin C. Wiltshire
- You can call me Justin or, if you're uncomfortable with that, Professor Wiltshire
- Email: [wiltshire@uvic.ca](mailto:wiltshire@uvic.ca)
- Just joined UVic as an Asst. Professor. Was a post-doc at UC Berkeley before
- Labour economist with a focus on low-wage workers
- More generally, an applied microeconomist interested in labour, urban/regional, public, and environmental economics
- I'm largely research-focused. I'm happy to talk to you about research ideas
- I grew up in Victoria, and just moved back after 14 years. Happy to recommend things to you if you're new in town. Happy to hear recommendations, too

Tell us:

- Your (preferred) name
- Where you're from
- Your recent background
- Your reason for doing grad school in economics
- Your career goals
- Your research interests or something you find really interesting



- Email do: Be polite. Say hi, use my name or title, and let me know who you are
- Email don't: Be presumptuous or use expectant language
- Email do: ask short questions that can be answered “yes” or “no”
- Email don't: ask long questions or anything that requires a long answer
- Do: talk to me during class or lab hours if you have long questions or concerns
- Do: participate in class. This is for your benefit. Take advantage
- Do: feel free to talk to me if you're feeling overwhelmed. Graduate school can cause a lot of stress and be overwhelming. You're not alone
- Don't: compare yourself to other grad students. It's a recipe for disaster and, honestly, you may be weaker in some areas and much stronger in others
- Do: strike a decent work-life balance. This will be difficult, but make sure to take care of yourself