MSPP – GP 1000 Methods and Microeconomics Intensive Fall 2021

Instructor Information

Professor Atul Pokharel

Email: pokharel@nyu.eduOffice Hours: by appointment

Professor Sewin Chan

Email: sewin.chan@nyu.eduOffice Hours: by appointment

Teaching Assistant: Hsi-Ling Liao
 Email: hsiling.liao@nyu.edu

Course Information

Course Dates: August 16 – August 27

Lecture: Monday to Friday, 9:00 am – 11:30 am
Recitation: Monday to Friday, 1:00 pm – 2:30 pm

August 16 – 20: The lecture and recitation will meet online only.

To join a live class session, click the Zoom tool on the top menu of the NYU Brightspace course site and then click Join for the scheduled class meeting. Be sure to login 5-10 minutes prior to the start of class to leave time for troubleshooting, or to have time to say hello to your classmates before class begins. Once you are on Zoom, pick your desired screen/participant view, and troubleshoot if audio or video doesn't automatically turn on. Please make sure that your participant name is your full name [first last].

Aug 23 – 27: The lecture and recitation will meet in person only.

Lecture: Silver, Room 412 Recitation: Silver, Room 412

Technology Support

Students have 24/7 support to NYU's IT services. Explore the NYU servicelink knowledgebase for troubleshooting and student guides for all NYU-supported tools (like Brightspace, Zoom, etc). Contact askIT@nyu.edu or 1-212-998-3333 for 24/7 technology assistance, or Zoom's 24/7 technical support and resources.

Course Description

This intensive course will provide students with:

- An understanding of basic statistics principles
- Familiarity with Stata
- Experience manipulating data and reading outputs in different formats
- A working knowledge of basic microeconomics concepts

Required Materials

- Ellenberg, J. (2015). How Not to be Wrong: The Power of Mathematical Thinking. Penguin. (No need to purchase. Available at library.nyu.edu)
- Diez, D. M., Barr, C. D., & Çetinkaya-Rundel, M. (2019). *OpenIntro statistics* 3rd *Edition*. Available for download on the class site.
- <u>Stata 15</u>. If you have an earlier (or later!) version of Stata installed, refer to NYU's site
 for purchasing (http://www.stata.com/order/new/edu/gradplans/student-pricing/). You will
 need Stata for your Fall quantitative methods course as well. Consider browsing the
 following site before you buy: https://guides.nyu.edu/stata
- McGraw-Hill's <u>Connect with Microeconomics 3e</u> by Dean Karlan and Jonathan Morduch. Connect is a web-based learning and assessment platform required for this course. To get started, go to: https://connect.mheducation.com/class/s-chan-august-2021
 You will be prompted to purchase access to the platform and the included e-book. You may also purchase a loose-leaf printed version of the textbook at a discounted price at this time. Do not purchase the printed book without Connect as you will not be able to submit the required assignments. If you have any issues registering or using Connect, please contact McGraw-Hill's Customer Service: http://www.mhhe.com/support or 800-331-5094.

Pre-Course Assignments

Given the intensive format of the course, pre-course preparation is essential. The pre-course assignments (sent earlier in the summer) will provide you with a working knowledge of basic microeconomic concepts. We will assume you have this foundation and will build upon it on the first day of class. You must complete the pre-course assignments by 9AM on the first day of class.

Course Outline

Class 1 – Monday, Aug. 16

Topics – Methods:

- Introduction and review
- Types of variables
- · Measures of central tendency and variability
- Introduction to probability

Before Class:

Be well rested.

Due by 7:30 am the Next Day:

• Chapters 1 and 2 of OpenIntro

Class 2 – Tuesday, Aug. 17

Topics – Methods

- Probability distributions and random variables
- Discrete vs. continuous random variables
- · Expectations and variance

Before Class:

• Chapter 2 and 3 of OpenIntro

Due by 7:30 am the Next Day:

Assigned at the end of class

Class 3 – Wednesday, Aug. 18

Topics – Methods

- Normal distributions and z-scores
- Statistical inference from samples to populations
- Variability in (random) samples

Before Class:

• Chapter 3 and 4 of OpenIntro

Due by 7:30 am the Next Day:

· Assigned at the end of class

Class 4 – Thursday, Aug. 19

Topics – Methods

- The central limit theorem and sampling distributions
- · Confidence intervals and p-values; hypothesis testing
- t-tests (means and proportions)

Before Class:

• Chapter 5 and 6 of OpenIntro

Due by 7:30 am the Next Day:

Assigned at the end of class

Class 5 – Friday, Aug. 20

Topics – Methods

- Crosstabs and chi-squared
- · Fitting lines to data
- Ordinary least squares (OLS)

Before Class:

• Chapter 6 and 7 of OpenIntro

Not Due, but Helpful:

• Chapter 7 Exercises of OpenIntro

Class 6 – Monday, Aug. 23

Topics - Microeconomics 1

- Scarcity, opportunity cost, comparative advantage, the gains from trade
- Competitive markets, demand and supply curves, elasticity
- Consumer and producer surplus, assessing efficiency
- Price controls

Before Class:

- All pre-course assignments (Chapters 1-5)
- Pre-lecture video: PPF and opportunity cost
- Pre-lecture video: demand

Due by 7:30 am the Next Day:

Post-lecture: Homework 1

Class 7 – Tuesday, Aug. 24

Topics – Microeconomics 2

- Taxes, subsidies
- Individual decision-making: budget constraints, income and substitution effects

Before Class:

- Pre-class assignments for Chapters 6, 7
- Pre-lecture video: taxes

Due by 7:30 am the Next Day:

• Post-lecture: Homework 2

Class 8 – Wednesday, Aug. 25

Topics – Microeconomics 3

- International trade and tariffs
- Production functions and cost functions. Short run versus long run. Profit maximization and output decisions of competitive firms

Before Class:

- Pre-class assignments for Chapters 17, (8), 12, 13
- Pre-lecture video: international trade

Due by 7:30 am the Next Day:

• Post-lecture: Homework 3

Class 9 – Thursday, Aug. 26

Topics – Microeconomics 4

- Labor markets
- Imperfect competition

Before Class:

- Pre-class assignments for Chapters 14, 16
- Pre-lecture video: monopoly

Due by 7:30 am the Next Day:

Post-lecture: Homework 4

Class 10 - Friday, Aug. 27

Topics – Microeconomics 5

- Game theory
- Asymmetric information
- Externalities
- Public goods

Before Class:

- Pre-class assignments for Chapters (9), (15), 10, 18, 19
- Pre-lecture video: asymmetric information

Due by 7:30 am the Next Day:

Post-lecture: Homework 5

Academic Integrity

Academic integrity is a vital component of Wagner and NYU. All students enrolled in this class are required to read and abide by <u>Wagner's Academic Code</u>. All Wagner students have already read and signed the <u>Wagner Academic Oath</u>. Plagiarism of any form will not be tolerated and students in this class are expected to report violations to me. If any student in this class is unsure about what is expected of you and how to abide by the academic code, you should consult with me.

Henry and Lucy Moses Center for Students with Disabilities at NYU

Academic accommodations are available for students with disabilities. Please visit the Moses Center for Students with Disabilities (CSD) website and click on the Reasonable Accommodations and How to Register tab or call or email CSD at (212-998-4980 or mosescsd@nyu.edu) for information. Students who are requesting academic accommodations are strongly advised to reach out to the Moses Center as early as possible in the semester for assistance.

NYU's Calendar Policy on Religious Holidays

NYU's Calendar Policy on Religious Holidays states that members of any religious group may, without penalty, absent themselves from classes when required in compliance with their religious obligations. Please notify me in advance of religious holidays that might coincide with exams to schedule mutually acceptable alternatives.