(This version: September 1st, 2025) Tuesdays 10am-1pm: FE 213

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Objectives: The era of free trade has ended. Even before the 2024 re-election of Donald Trump in the United States, a substantial proportion of the world's population had decided that globalization had gone too far. In response, governments increasingly started to exercise tools to manipulate amounts of exports and imports that left/entered their countries. This class is about these tools and how economists think about their effects. The class will start by examining the rise of globalization through institutions such as GATT and the WTO before turning to globalization's decline. We will examine the theoretical welfare effects of various tools such as tariffs and quotas before moving to modern empirical work documenting their effects. We will study quantitative trade models that put numbers to theory, before closing with the field of Geoeconomics which studies the political aspects of economies and resources as they pertain to international trade. **Class attendance is mandatory.**

Syllabus: This draft represents by best guess/ambition for the material I want to cover this semester. If the past is any lesson, this will likely change such that I will update the readings as we progress. Please refer to the date at the top of this document for the most recent version of the syllabus. The version posted on Quercus will always be the "right" version. In accordance with University of Toronto policy, the grading metric will not change without a simple majority of student votes (no quorum needed).

Term Tests: There will be an in-class midterm and then a final exam during the final exam period dictated by the University.

Exam Issues: The University is constantly changing the precise rules for tests and final exams. Please see this <u>link</u> for the most recent information. Note is a requirement that students' photo ID must be checked as students enter the exam room *for the final exam*: no ID, no entry, no exceptions.

Academic Expectations: I expect that you will be able to perform basic calculus and regression analysis at the level of ECO372. I will also expect that you are able to perform simple linear regression using ordinary least squares and fixed effects (i.e. "dummy variables"). In a course this large, I have chosen to not make exceptions to the list of prerequisites.

Textbook: None

ACADEMIC MISCONDUCT

Students should note that I do not tolerate any form of academic misconduct. Any student caught engaging in such activities will be subject to academic discipline ranging from a mark of zero to dismissal from the university as outlined in the academic handbook. Any student abetting or otherwise assisting in such misconduct will also be subject to academic penalties.

ABSENCE FROM EXAMS.

- In accordance with university policy, I will accept any of the four following recognized forms of documentation.
 - Absence Declaration via ACORN
 - U of T Verification of Illness or Injury Form (VOI)
 - College Registrar's letter
 - Letter of Academic Accommodation from Accessibility Services
 - Students must self-declare an absence on Acorn. In addition, students are required to email me by 9am ET the day of the exam if they need to declare an absence. Importantly, students can self-declare one absence (of up to seven days) each term (That's once per term, not once per course).
 - If you have an excused absence for the midterm, the weight will be placed on your final exam.
- The Faculty of Arts and Science select the dates for examinations within the final exam period. You must not make travel, employment or other plans that may conflict with the date chosen for the examination in this course and any such conflict will not be accepted as grounds for writing a deferred exam. I will not make special arrangements with students who miss the final exam.

Additional Issues

- 1) **Recording:** This class will not be recorded. Attendance is mandatory.
- 2) Laptop/iPad Requirements: you will be required to do coding in Python and Julia, the latter of which is a computational language. You must have access to a "computer" by which you can do this. It is in your interest for this to be portable as the teaching staff can then more easily help you.

- 3) **Python**: We will be conducting coding in Python. I will be using Spyder as accessed from the Anaconda environment (https://www.anaconda.com/download). We will use this to download data through APIS, present data graphically, and run regressions. This is instead of R and Stata. Support for these two will not be provided.
- 4) Julia: Julia is a programming language. While Jula and Python are both high-level, dynamically typed programming languages, Julia is designed for high-performance numerical and scientific computing, achieving speeds comparable to C or Fortran. Julia is specifically built for scientific computing, data science, and machine learning research, excelling in areas requiring high-speed computations and native matrix manipulations. Python is a more general-purpose language with a vast ecosystem, used for web development, data analysis, machine learning, automation, and more. Please follow Julia installation and coding instructions from: https://julia.quantecon.org/intro.html.
- 5) Generative AI Policies: You may use generative artificial intelligence tools (e.g., ChatGPT, Gemini, Claude, etc.) for learning and practicing the concepts in this course. However this cuts both ways as I may often ask you to "go figure it out", especially in reference to coding.

6) Weighting Scheme:

Class Participation: 10%

Problem Sets/In-Class Writing Assignments: 30% (four anticipated assignments.)

Midterm: 30% Final Exam: 30%

- 7) Class Participation: your mark for class participation is 100% under my discretion although I see no benefit to either of us in being intentionally deceptive. A bare minimum is to come to class. Additional criteria include but are not limited to participation in class discussions and coherent responses to cold colds. The definition of "coherent" is obviously of interest and combines aspects of integrating clear economic thinking and effort when confronted with confusion.
- 8) **Readings**: All assigned readings will be posted on Quercus. If you would like access to another reading listed in the syllabus, please let me know.
- 9) Problem Sets: All homework should be submitted to the course website on Quercus. No paper copies should be turned in. All problem sets must be turned in by 10am on the stated due date as given in class. No late problem sets will be accepted unless you use an official Absence Declaration. Problem set due dates are listed in the Course Outline section below. These dates are targets and are not promises.

- 10) **Preparing for exams**: This is the first time that the class will have been taught. There are no old exams nor will there be any practice problems outside the problem sets.
- 11) **Test Score Appeals**: appeals will be conducted according to the following procedure:

Please type a short paragraph (3-4 sentences) explaining the grievance and why you should obtain additional points. To be entertained, there must be a clear mistake in the grading relative to the posted answer key. If there is a clear mistake in the answer key, this is another possible reason for a regrade. Give a pdf of this document to me or to your TA. You must turn in this appeal by the end of class the week following the week in which exams are first handed back. If there is an obvious error such as points being incorrectly added, no such document is needed.

Conditional on this argument being found persuasive by me, the *entire* exam will be regraded. Your score can go up or down. Grading is an imprecise science; points are often given that are not deserved and taken away when they are deserved. Please think carefully about your choice of whether to appeal a mark. Note: This does not apply to trivial appeals such as points being added incorrectly.

12) Important dates:

September 2nd Fall term classes begin.

September 2nd The first day of classes for ECO364.

September 11th Waitlists close.

September 15th Last day to enroll in F classes.

September 16th First day to select a Credit/No-Credit option.

September 23rd CLASS CANCELLED [Professor Morrow in Hong Kong]

October 14th Midterm Exam (in class)
October 28th Reading Week (no class).

November 4th (at least) 10% of marks returned by this date.

November 11th Last day to drop class.

November 4th Midterm. November 25th Last class

December 2nd Last day to request Late Withdrawal (LWD)

December 5th-23rd Final exam period.

Important University dates can be found <u>here</u>.

13) Email Policy:

For emails that require my attention, I will respond to e-mail within 24 hours on a weekday, 48 hours on a weekend, according to the following policy:

- a) I only respond to e-mails posing questions that can be answered in a sentence or three. For more involved questions, please come to office hours.
- b) I do not reply to e-mails that request information that can be found on the website or the syllabus, so you should check those places first.
- c) Use proper grammar in your emails. I judge you based on how you write.
- e) Please use official "utoronto.ca" email accounts for all communication.
- 14) **References**: I am very restrictive regarding for whom I am willing to write letters. A minimum qualification is active participation in class. If I do not recognize your name and you cannot point to multiple specific interactions, I do not write reference letters. In addition, I prefer to only write such letters for those who obtain a score of 85 or above although exceptions are more likely to be made for this than for the class participation rule.

COURSE OUTLINE:

<u>Dates Below are Preliminary Subject to Revision (Especially Starting September 30th)</u>

Week 1 (September 2nd): Introduction and A History of Trade Policy in the 20th Century

Week 2 (September 9th): The Classical Gains from Trade and Setting Up Armington Model

- Varian, Hal. *Intermediate Microeconomics,* Section 7.4 "The Weak Axiom of Revealed Preference" (2014) (Handout).
- Krugman, Paul and Maurice Obstfeld and Marc Melitz "Chapter 6: The Standard Trade Model" (2022) (Handout)
- Bernhofen, Daniel M., and John C. Brown. "A direct test of the theory of comparative advantage: the case of Japan." *Journal of Political Economy* 112, no. 1 (2004): 48-67.
- Bernhofen, Daniel M., and John C. Brown. "An empirical assessment of the comparative advantage gains from trade: evidence from Japan." *American Economic Review* 95, no. 1 (2005): 208-225.
- Tutorial: Setting Up Python and Julia
- Assignment 1 Due September 16th: downloading and visually presenting data.

Week 3 (September 16th): Quantitative Models of International Trade

- Class Notes.
- Eaton, Jonathan, and Samuel Kortum. "Putting Ricardo to work." *Journal of Economic Perspectives* 26, no. 2 (2012): 65-90.
- Larch, M., Shikher, S., and Yotov, Y. (2025), "The International Trade and Production Database for Estimation Release 3 (ITPD-E-R03)," *USITC Working Paper 2025–06–A*.

- Tutorial: Matrix Algebra and Coding in Julia
- Assignment 2 Due October 7th (Quantitative Counterfactuals in Julia)

Week 4 (September 23rd):

CLASS CANCELLED DUE TO INSTRUCTOR TRAVEL.

Week 5 (September 30th): The Tools of Trade Policy

- Anderson, James, and J. Neary. "Measuring the Restrictiveness of International Trade Policy." *World Bank Economic Review* 8, no. 2 (1994).
- Feenstra, Robert C. "How costly is protectionism?" *Journal of Economic Perspectives* 6, no. 3 (1992): 159-178.
- Krugman, Paul, Maurice Obstfeld, and Marc Melitz. "International Economics: Theory and Policy, the latest edition." (2017).

Week 6: (October 7th): Empirical Evidence on the Tools of Trade Policy

- Amiti, Mary, Stephen J. Redding, and David E. Weinstein. "The impact of the 2018 tariffs on prices and welfare." *Journal of Economic perspectives* 33, no. 4 (2019): 187-210.
- Cavallo, Alberto, Gita Gopinath, Brent Neiman, and Jenny Tang. "Tariff pass-through at the border and at the store: Evidence from us trade policy." *American Economic Review: Insights* 3, no. 1 (2021): 19-34.
- Fajgelbaum, Pablo D., Pinelopi K. Goldberg, Patrick J. Kennedy, and Amit K. Khandelwal. "The return to protectionism." *The Quarterly Journal of Economics* 135, no. 1 (2020): 1-55.

Week 7: October 14th:

MIDTERM EXAM

Week 8 (October 21st): Trade Policy with Global Value Chains

- Johnson, Robert C. "Five facts about value-added exports and implications for macroeconomics and trade research." *Journal of Economic Perspectives* 28, no. 2 (2014): 119-142.
- Blanchard, Emily J., Chad P. Bown, and Robert C. Johnson. "Global value chains and trade policy." *Review of Economic Studies* (2025): rdaf017.
- Krugman, Paul, Maurice Obstfeld, and Marc Melitz. "International Economics: Theory and Policy, the latest edition." (2017).
- Assignment 3 Due November 4th (Amiti, Redding, Weinstein replication)

Week 9 (October 28th):

READING WEEK

Week 10 (November 4th): The World Trade Organization (Theory and Evidence)

- Bagwell, Kyle, and Robert W. Staiger. *The Economics of the World Trading System*. MIT press, 2004.
- Broda, Christian, Nuno Limao, and David E. Weinstein. "Optimal tariffs and market power: the evidence." *American Economic Review* 98, no. 5 (2008): 2032-2065.
- Larch, Mario, José-Antonio Monteiro, Roberta Piermartini, and Yoto V. Yotov. "On the trade effects of GATT/WTO membership: They are positive and large after all." *Canadian Journal of Economics/Revue canadienne d'économique* 58, no. 1 (2025): 281-328.
- Assignment 4 due November 25TH: Broda, Limao, Weinstein replication (tentative)

Week 11 (November 11th): Geoeconomics and Trade (tentative)

- Becko, John Sturm, and Daniel O'Connor. *Strategic (dis) integration*. Working paper, 2024.
- Itskhoki, Oleg, and Elina Ribakova. "The economics of sanctions: From theory into practice." *Brookings Papers on Economic Activity* 425 (2024): 470
- Martin, Philippe, Thierry Mayer, and Mathias Thoenig. "Make trade not war?." *The Review of Economic Studies* 75, no. 3 (2008): 865-900.
- Martin, Philippe, Thierry Mayer, and Mathias Thoenig. "The geography of conflicts and regional trade agreements." *American Economic Journal: Macroeconomics* 4, no. 4 (2012): 1-35.
- Mayer, Thierry, Isabelle Mejean, and Mathias Thoenig. *The fragmentation paradox: De-risking trade and global safety.* working paper, 2025.
- Mohr, Cathrin, and Christoph Trebesch. "Geoeconomics." *Annual Review of Economics* 17 (2025).

Week 11 (November 18th): Industrial Policy (tentative)

- Bown, Chad P., and Dan Wang. "Semiconductors and modern industrial policy." *Journal of Economic Perspectives* 38, no. 4 (2024): 81-110.
- Goldberg, Pinelopi K., Réka Juhász, Nathan J. Lane, Giulia Lo Forte, and Jeff Thurk. *Industrial policy in the global semiconductor sector*. No. w32651. National Bureau of Economic Research, 2024.
- Juhász, Réka, and Nathan Lane. "The political economy of industrial policy." *Journal of Economic Perspectives* 38, no. 4 (2024): 27-54.
- Juhász, Réka, Nathan Lane, and Dani Rodrik. "The new economics of industrial policy." *Annual Review of Economics* 16 (2023).
- Anne, Krueger. "The political economy of the rent-seeking society." *American economic review* 64, no. 3 (1974): 291-303.
- Lane, Nathan. "Manufacturing revolutions: Industrial policy and industrialization in South Korea." *The Quarterly Journal of Economics* (2025): gjaf025.

Week 13 (November 25th): OVERFLOW