University of Colorado at Boulder
Spring Semester 2023

Econ 8433-001: Topics in International Economics

Lecture:	TR, 12:45 PM - 02:00 PM
Instructor:	Dr. Sergey Nigai
Office:	ECON 122
Office Hours:	TR , 2:00pm - 3:30pm and by appointment
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Course description and objectives:

This is a seminar on various topics in international economics. The course is a part of the graduate trade sequence and complements the course on international trade theory. Unlike the latter, this course will not include extensive review of the literature and instead will cover data, estimation, calibration, and solutions of several classes of modern quantitative models. Completion of ECON 8413 is not a prerequisite for this class. However, students planning to write their dissertation in international trade should take both.

The main objective of this course is to provide you with the tools necessary to nd quantitative answers in international economics. This involves choosing the appropriate theoretical model, estimating its parameters, and designing quantitative experiments. By the end of the semester, I expect you to have completed a report containing the actual results you will derive. This report may eventually serve as the basis for one of the

{ What is the timeline of your research project?

- Intermediate Presentation will include updates on your progress:

    { What data/models do you use to answer the research question?

    { What difficulties/issues have you encountered so far? How are you planning to address them?

- Final Presentation will be a regular (though shorter than usual) paper presentation.

I will also assign several problem sets during the semester. These problem sets will reinforce your understanding of various quantitative approaches and ensure that you have multiple sample codes that can be used for your research projects in the future.

Grading:

Your final grade will be calculated as follows:

Participation

- Head, K. and T. Mayer (2014), \Gravity Equations: Workhorse, Toolkit, and Cookbook", Chapter 3 in Gopinath, G, Helpman, E., and K. Rogo (eds.), *Handbook of International Economics*, Vol. 4.

- Egger, P.H. and S. Nigai (2015), Structural gravity with dummies only: Constrained ANOVA-type estimation of gravity models, *Journal of International Economics*, 97(1), 86-99.

Week 3: January 31, February 2: Mapping Models to the Data

- GGDC Productivity Level Database

- WITS, CEPII

- World Input-Output Database

Week 4: February 7, February 9: Designing Counterfactual Experiments in General Equilibrium

- Dekle, R., Eaton, J., and S. Kortum (2007), Unbalanced Trade, *American Economic Review*, 97(2), 351-355.

- Arkolakis C., Costinot, A., and A. Rodriguez-Clare (2012), New Trade Theories Same Old Gains?, *American Economic Review*, 102(1), 94-130.

- Costinot, A. and A. Rodriguez-Clare (2014), \Trade Theory with Numbers: Quantifying the Consequences of Globalization", Chapter 4 in Gopinath, G, E. Helpman and K. Rogo (eds.), *Handbook of International Economics*, Vol. 4.

- Allen and Arkolakis: Chapter 7

Week 5: February 14, February 16: Presentations (I) and Catch-up

Week 6: February 21, February 23: Heterogeneous Firms (I)

- Melitz, M. (2003), The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity, *Econometrica*, 71(6), 1695-1725.

- Arkolakis C., Demidova, S., Klenow, P., and A. Rodriguez-Clare (2008), Endogenous Variety and the Gains from Trade, *American Economic Review*, 98(2), 444-450.

- Chaney, T. (2008), Distorted Gravity: Heterogeneous Firms, Market Structure, and the Geography of International Trade, *American Economic Review*, 98(4), 1707-1721.

Week 7: February 28, March 2: Heterogeneous Firms (II)

- Melitz, M. and S. Redding (2014), \Heterogeneous Firms and Trade", Chapter 1 in Gopinath, G, E. Helpman and K. Rogo (eds.), *Handbook of International Economics*, Vol. 4.

- Allen and Arkolakis: Chapters 3-5

Week 8: March 7, March 9: Ricardian Models

- Eaton J. and S.Kortum (2002), Technology, Geography, and Trade, *Econometrica*, 70(5), 1741-1780.

- Allen and Arkolakis: Chapter 4

Week 9:   March 14, March 16: Multi-sector models

Week 10:   March 21, March 23: Global Value Chains

      - Antras, P., and Chor, D. (2013). Organizing the Global Value Chain, Econometrica.

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- Both students and faculty are responsible for maintaining an appropriate learning environment in

you have a temporary medical condition, see Temporary Medical Conditions on the Disability Services website.

- Submit your letter during the first two weeks of classes. If the accommodation letter becomes available later in the semester, please inform me immediately such that I have time to make proper accommodations.

Preferred Student Names and Pronouns

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veteran status, political affiliation or political philosophy. Individuals who believe they have been subject to misconduct under either policy should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127. Information about the OIEC, the above referenced policies, and the campus resources available to assist individuals regarding sexual misconduct, discrimination, harassment or related retaliation can be found at the OIEC website.