

Quantitative Trade Models

Basics Georgetown University Qatar Spring 2018
ECON 442: Quantitative Trade Models

Class time: 10:00–11:15am Sun, Tues; 5:00-6:15pm Wed
Class Meetings will run through March 28
Class location: LA12

Course website: <http://rossbach.georgetown.domains/econ442.html>

Instructor Jack Rossbach Office hours: By Appointment
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Course Description This course will cover theoretical and quantitative aspects of international trade. The goal of the semester will be to learn how to solve modern trade models computationally and calibrate them using data in order to perform counterfactuals. We will start by briefly reviewing Ricardian trade theory before moving on to models featuring monopolistic competition and firm-level heterogeneity. We will review the trade gravity literature, familiarize ourselves with datasources for international trade flows, and discuss international trade agreements and optimal trade policy.

Assessment Methods **Assignments & Problem Sets 50%**
There will be several short assignments based off lectures (20%). In addition, problem sets (30%) involving computational work will be assigned over the semester. Problem Sets must be typed and uploaded to Canvas. Late submissions will be penalized 10 points immediately and an additional 5 points per day they are late.

Class Participation 20%
Everybody will be expected to participate in in-class discussions and exercises. Attendance will be taken on days where we have discussions, labs, or worksheets. Completing self-guided R tutorials will count towards participation.

Midterm 20%
There will be a single midterm, announced at least one week in advance.

Final Report 10%
Students will be asked to write a short report on a recent paper or policy reform. This will be due during the normal finals week

Grading Scale A-F with standard cutoffs: A = 93, A- = 90, B+ = 87, B = 83, B- = 80, C+ = 77, C = 73, C- = 70, D+ = 67, D = 63, D- = 60, F = Below 60.

Course Materials This course will not follow a specific textbook. Selected readings will be provided. Lecture notes and slides will be made available on the course website.

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Topics	<p>Preliminaries Gains from trade, comparative advantage, partial vs general equilibrium</p> <p>Introduction to Computational Model Solving Solving systems of equations, newtons method</p> <p>Trade Policy Free trade agreements, tariff and non-tariff barriers, political economy</p> <p>New Trade Theory Monopolistic competition, increasing returns to scale</p> <p>Heterogeneity Export decisions, multi-dimensional Ricardian models, the extensive margin</p> <p>Gravity Models Gravity regressions, welfare analysis, counterfactuals</p>
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Course Goals	<p>Following the completion of this course students should</p> <ul style="list-style-type: none">-Understand modern and historic perspectives on international trade-Gain familiarity with data sources available for studying international trade flows-Be able to solve economic models of trade both analytically and computationally-Have the tools and knowledge to manipulate and interpret data through the lens of the economic models and theories studied in this course
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Computation	<p>This course will involve a significant amount of computational work and data manipulation. Software used in this course will include Excel, Stata, and R. No prior experience with Stata or R is assumed or required.</p>
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Additional Policies	<p>No late work will be accepted following the last day of class. The midterm exam will not be rescheduled. Students who miss the exam with an excused absence will have the other items weighted in place of the missed exam.</p>
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Absences	<p>https://qatar.sfs.georgetown.edu/programs/academic-affairs-policies</p>
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Academic Integrity	<p>https://qatar.sfs.georgetown.edu/programs/honor-system/sfs-q-honor-system</p>
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