

ECON 4001, Spring 2026

Trade Theory

Department of Economics, National Taiwan University

Instructor Information

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Office Hours: Tuesday 10:00–11:00 (tentative)

Class Information

Location: Social Science Building 506
Time: Monday 13:20–16:20
Credits: 3 credits
TAs: Tai-Chen Hsiao (r14323031@ntu.edu.tw)
– Office Hours: Thursday 10:00–11:00 (Room 654)
Sander Capetz (r14323051@ntu.edu.tw)
– Office Hours: Friday 16:30–17:30 (Room 649)

1. Course Description

This course introduces the core theories and tools used to analyze international trade.

In the first part, we develop the main trade models used to explain why countries trade and what determines trade patterns, including the Ricardian model, the Krugman model of increasing returns and monopolistic competition, the Specific Factors model, the Heckscher-Ohlin model, and the gravity model for understanding bilateral trade flows.

In the second part, we study trade policy. We analyze the welfare and distributional effects of key trade policy instruments, such as tariffs and quotas. We also discuss the roles of trade institutions and agreements in historical context, as well as recent debates on trade wars and protectionism.

In the final part, we cover selected advanced topics that connect trade theory to modern global economic questions, including trade and the labor market, the role of firms in the global economy, foreign direct investment and multinational production, and global supply chains. Throughout the course, we emphasize how to use disciplined economic reasoning to interpret real-world trade issues.

2. Course Objectives and Learning Outcomes

The goal of this course is to equip students with the core theoretical frameworks used in international trade and the ability to apply model-based reasoning to understand trade patterns and policy. The course also aims to prepare students to connect trade theory to major contemporary globalization issues.

By the end of the semester, students are expected to be able to:

- explain why countries trade and what determines patterns of specialization and trade flows;
- work fluently with major trade models;
- use economic reasoning to assess the welfare and distributional consequences of trade and globalization;
- evaluate the effects of trade policy critically;
- apply trade theory to real-world trade issues; and
- communicate trade-theoretic arguments clearly, including assumptions, mechanisms, and policy implications.

3. Course Requirements

During the course, students are expected to:

- attend lectures and participate in class discussions;
- complete problem sets (approximately every two weeks); and
- take in-person midterm and final exams.

Prerequisite: Students are expected to be familiar with introductory economics and basic calculus. Because the course relies heavily on constrained optimization and general-equilibrium reasoning, familiarity with intermediate microeconomics is strongly recommended but not required.

4. Course Logistics

Course materials:

- Lecture slides, announcements, and assignment files will be posted on NTU COOL.

Slack (optional, supplementary):

- Slack may be used as an optional communication space for class discussion and questions. Joining Slack is not required and does not affect grades.
- Students will receive a Slack workspace invitation to their NTU email during the first week of class.
- NTU COOL remains the official source of record. Any official announcement posted on

Slack will also be posted on NTU COOL.

Office hours:

- Students are encouraged to discuss course-related questions in office hours.
- If office-hour times and/or locations need to change in a given week, updates will be announced on both NTU COOL and Slack.

Communication:

- Use university email with subject line prefix [ECON4001] for course-related messages.
- Before asking questions, please make sure to read the syllabus and recent NTU COOL announcements carefully.
- For course-content questions, posting in public Slack channels is preferred because it helps classmates with similar questions. Direct messages and emails are acceptable for private matters.
- We strive to respond to emails and Slack messages promptly, but please allow up to 1-2 business days for a reply. Responses to last-minute questions on an assignment due date are not guaranteed.

5. Textbooks and Required Readings

Required readings: There is no required textbook for this course. Lectures are based on lecture slides. A detailed reading list will be provided during the semester.

Optional background references (for self-study):

- Krugman, P. R., Obstfeld, M., and Melitz, M. J. *International Trade: Theory and Policy*
- Feenstra, R. C. and Taylor, A. *International Trade*

6. Assessment and Grading

Student performance will be evaluated based on the following components:

Component	Weight
Problem Sets	20%
Midterm Exam	30%
Final Exam	50%
Total	100%

Assessment timeline (tentative):

- Problem sets: approximately every two weeks, 6 problem sets in total

- Midterm exam: Week 8 (April 13)
- Final exam: Week 16 (June 8)

7. Assignment and Exam Policies

Problem set policy:

- There will be 6 problem sets in total. Each problem set accounts for 4% of the final grade.
- The lowest problem-set score will be dropped automatically, so the top 5 problem-set scores are counted (total 20%).
- All problem-set answers must be submitted online via NTU COOL.
- Students may (and are highly encouraged to) collaborate and discuss approaches with classmates, but each student must submit their own final write-up.
- Solutions will be released after the deadline for self-review.
- Late problem sets are generally not accepted. Rare exceptions require documented official reasons and advance communication whenever possible and will be handled on a case-by-case basis.

Exam policy:

- Midterm and final exams are in person unless otherwise announced.
- The midterm exam covers course materials up to and including Week 6. The final exam is cumulative, with greater emphasis on materials covered after the midterm.
- If a student misses the midterm due to medical or other documented official reasons, the final exam weight becomes 80% (problem sets remain 20%). There is no make-up final exam.
- Each exam allows one A4-sized “cheat sheet” prepared by the student and handwritten by the student. The cheat sheet may be written on both sides of a single A4 sheet. Students must write their name and student ID on the sheet and submit it together with the exam paper.
- Printed notes, photocopies, or sheets prepared by others are not allowed. No digital devices may be used as note substitutes during the exam. Non-compliant sheets may be removed before the exam begins; attempted use of unauthorized materials may be treated as academic misconduct.

Regrade policy: Regrade requests must be submitted in writing within one week of receiving graded work. The entire problem set or exam will be regraded (not only a selected question), so the final score may increase, decrease, or remain unchanged.

8. Academic Conduct and Accommodation Policies

Attendance and participation: This course does not take attendance. However, regular attendance and active participation are expected and highly recommended.

Academic integrity: Students must follow NTU’s academic integrity rules. Any plagiarism, cheating, or other forms of academic misconduct will not be tolerated and will be subject to disciplinary actions according to university regulations.

Accessibility and accommodations: Students who need accommodations should contact the instructor and relevant NTU offices (such as the [Office of Student Affairs](#)) as soon as possible. NTU’s Disability Accommodation Policy is available [here](#).

Classroom conduct: Please arrive on time, minimize disruptions, and maintain a respectful discussion environment.

Slack etiquette:

- Be respectful and professional in all messages.
- Do not post private personal information or grade-related personal details in public channels.

9. Tentative Course Schedule

Week	Date	Topic
Week 1	2/23	Introduction to International Trade
Week 2	3/2	Ricardian Model
Week 3	3/9	Krugman Model
Week 4	3/16	Specific Factors Model
Week 5	3/23	Heckscher-Ohlin Model
Week 6	3/30	Gravity Model
Week 7	4/6	<i>No Class (Holiday)</i>
Week 8	4/13	Midterm Exam
Week 9	4/20	Trade Policy Under Perfect Competition
Week 10	4/27	Trade Policy Under Imperfect Competition
Week 11	5/4	Trade War and Protectionism
Week 12	5/11	Trade and Labor Market
Week 13	5/18	Firms in the Global Economy
Week 14	5/25	FDI and Multinational Production
Week 15	6/1	Global Supply Chains
Week 16	6/8	Final Exam

Note: The schedule is tentative and may be adjusted based on class progress and university announcements.

10. Topic Guide and Suggested Readings

The readings below are suggested references for each topic. They are neither required nor exhaustive. At the level of this course, students are not expected to master every technical detail in these selected readings; the main goal is to develop economic intuition and understand the core ideas. Students interested in further study are welcome to consult the instructor for additional advanced references.

Part I. Foundations (Weeks 1 to 6)

- **Introduction and gains from trade**

Suggested textbook chapters: Krugman, Obstfeld, and Melitz (KOM), Chapters 1-2; Feenstra and Taylor (FT), Chapter 1

Selected article: [Antràs \(2020\)](#) “De-Globalisation? Global Value Chains in the Post-COVID-19 Age”

- **Ricardian model and comparative advantage**

Suggested textbook chapters: KOM Chapter 3; FT Chapter 2.

Selected articles: [Samuelson \(2004\)](#) “Where Ricardo and Mill Rebut and Confirm Arguments of Mainstream Economists Supporting Globalization” *Journal of Economic Perspectives*; [Bernhofen and Brown \(2004\)](#) “A Direct Test of the Theory of Comparative Advantage: The Case of Japan” *Journal of Political Economy*; [Costinot and Donaldson \(2012\)](#) “Ricardo’s Theory of Comparative Advantage: Old Idea, New Evidence” *American Economic Review*

- **Krugman model: increasing returns and monopolistic competition**

Suggested textbook chapters: KOM Chapter 7; FT Chapter 6.

Selected articles: [Krugman \(1979\)](#) “Increasing Returns, Monopolistic Competition, and International Trade” *Journal of International Economics*; [Krugman \(1980\)](#) “Scale Economies, Product Differentiation, and the Pattern of Trade” *American Economic Review*.

- **Specific factors model: winners and losers of trade**

Suggested textbook chapters: KOM Chapter 4; FT Chapter 3.

- **Heckscher-Ohlin model: trade and resources**

Suggested textbook chapters: KOM Chapter 5; FT Chapter 4.

- **Gravity model and multi-country trade**

Suggested articles: [Anderson and van Wincoop \(2003\)](#) “Gravity with Gravitas: A Solution to the Border Puzzle” *American Economic Review*; [Yotov \(2025\)](#) “Gravity for Undergrads.”

Part II. Trade Policy (Weeks 9 to 11)

- **Trade policy under perfect competition**

Suggested textbook chapters: KOM Chapters 9-10; FT Chapter 8.

- **Trade policy under imperfect competition**

Suggested textbook chapters: KOM Chapter 12; FT Chapters 9-10.

- **Trade war, protectionism, and recent policy debates**

Selected articles: [Amiti, Redding, and Weinstein \(2019\)](#) “The Impact of the 2018 Tariffs on Prices and Welfare” *Journal of Economic Perspectives*; [Flaen, Hortaçsu, and Tintel-](#)

not (2020) “The Production Relocation and Price Effects of US Trade Policy: The Case of Washing Machines” *American Economic Review*; Fajgelbaum and Khandelwal (2022) “The Economic Impacts of the US-China Trade War” *Annual Review of Economics*.

Part III. Advanced Topics (Weeks 12 to 15)

- **Trade and labor market**

Selected articles: Autor, Dorn, and Hanson (2013) “The China Syndrome: Local Labor Market Effects of Import Competition in the United States” *American Economic Review*; Hummels, Jørgensen, Munch, and Xiang (2014) “The Wage Effects of Offshoring: Evidence from Danish Matched Worker-Firm Data” *American Economic Review*.

- **Firms in the global economy**

Suggested textbook chapter: KOM Chapter 8.

Selected articles: Melitz (2003) “The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity” *Econometrica*; Bernard, Jensen, Redding, and Schott (2007) “Firms in International Trade” *Journal of Economic Perspectives*; Melitz and Trefler (2012) “Gains from Trade When Firms Matter” *Journal of Economic Perspectives*.

- **FDI and multinational production**

Selected articles: Helpman, Melitz, and Yeaple (2004) “Export Versus FDI with Heterogeneous Firms” *American Economic Review*; Antràs and Yeaple (2014) “Multinational Firms and the Structure of International Trade” *Handbook of International Economics*.

- **Global supply chains**

Selected articles: Ganapati and Wong (2023) “How Far Goods Travel: Global Transport and Supply Chains from 1965–2020” *Journal of Economic Perspectives*; Fort (2023) “The Changing Firm and Country Boundaries of US Manufacturers in Global Value Chains” *Journal of Economic Perspectives*; Baldwin and Freeman (2022) “Risks and Global Supply Chains: What We Know and What We Need to Know” *Annual Review of Economics*.