# Syllabus for E421 International Trade Theory

Dr. Knut Niemann and M.Sc. Judith Lehner

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## 1. General information

### Lecturers

Knut Niemann will generally deliver the lectures and some tutorials, and Judith Lehner will give the remaining tutorials.


- Dr. Knut Niemann, knut.niemann@uni-tuebingen.de
- M.Sc. Judith Lehner, judith.lehner@uni-tuebingen.de


Office hours are by appointment and may take place either virtually or in person.

### Prerequisites

Students should have taken a (Master-level) course on advanced microeconomics, such as E424 at the University of Tübingen.

### Learning objective

The course provides an overview of international trade theory and introduces students to the key models in current research. Students will learn about the determinants of international trade patterns, their effects on domestic welfare and income distribution, and the effects of trade policies.

### Learning platform

All material relevant to the course will be uploaded to Ilias. The link to the course is `https://ovidius.uni-tuebingen.de/goto.php/crs/5559848`.

### Meetings

The language of instruction is English. Due to a research stay in Copenhagen until the end of May, the course follows a modified schedule in the first half of the semester. The schedule is shown in Table 2. For the exact rooms and the download link for adding events to your calendar, see Alma.

## 2. Assessment

Students who pass the course are awarded 9 ECTS credits.

### Final exam

There is a written final exam at the end of the semester, with two possible examination dates. The first exam date will fall between late July and mid-August, and the second between late September and mid-October. The exact dates will be announced during the semester. The exam lasts 90 minutes, and the maximum number of points is 90. Students can earn up to 12 bonus points by submitting solutions to problem sets during the semester. These bonus points are added to the points earned in the final exam. Students may use one A4-sized cheat sheet during the exam. Both sides may be used. Notes may be handwritten on paper or handwritten digitally (e.g., on a tablet) and printed.

### Problem sets

There are six problem sets in which students derive the main results of the papers discussed in class. Some problem sets also include an empirical application. To work on these problem sets, students may form groups of up to three and may form new groups for each problem set. Solutions do not need to be fully correct to earn points, but they must demonstrate serious engagement with the problem set. Solutions must be typeset in LaTeX and submitted via Ilias. A template will be provided.

Groups may be asked to present their solution to an individual exercise in class; this is optional and does not carry additional bonus points. However, participation demonstrates academic engagement and may be helpful when requesting letters of recommendation or applying to PhD programs.

The topics and due dates of the problem sets are shown in Table 1. All relevant material for the first three problem sets will be available at the beginning of the semester.

Table 1: Problem sets and due dates

| Problem set | Topic | Due date |
|---|---|---|
| 1 | Basics of Cobb–Douglas and CES preferences | April 20 |
| 2 | Ricardo | May 2 |
| 3 | Dornbusch, Fischer, and Samuelson (1977) | June 3 |
| 4 | Eaton and Kortum (2002) | June 10 |
| 5 | New trade theory | June 24 |
| 6 | “New” new trade theory | July 1 |

### Use of generative AI

Generative AI tools may be used in preparing problem-set solutions. However, the purpose of the problem sets is to help students develop their own understanding of the models and techniques discussed in class. Students therefore remain fully responsible for the correctness of everything they submit and should be able to explain and justify their solutions if asked to do so. Students should also keep in mind that the final exam will require them to apply the methods and concepts independently, and that exam questions will likely differ from those covered in the problem sets. Heavy reliance on AI-generated solutions is therefore unlikely to be an effective way to prepare for the exam.

## 3. Content

The course is structured into the following four modules.

1. Ricardian trade theory (seven weeks)
   - Ricardo, Dornbusch, Fischer, and Samuelson (1977), and Eaton and Kortum (2002)
2. Factor proportions theory (one week)
   - Heckscher–Ohlin
3. New trade theory and "new" new trade theory (four weeks)
   - Krugman (1979), Krugman (1980), Melitz (2003), and Chaney (2008)
4. Recent literature (two weeks)
   - Gravity: from Armington (1969) to Arkolakis et al. (2012)
   - Offshoring: Grossman and Rossi-Hansberg (2008) and Helpman et al. (2010)
   - Trade policy: if time permits

The topics covered in each meeting are shown in Table 2.

Table 2: Course schedule

| Week | Dates | Monday | Tuesday | Wednesday |
|---|---|---|---|---|
| 1 | Apr. 13–19 | L1 Intro | L2 Ricardo | L3 DFS 1 |
| 2 | Apr. 20–26 | No meetings | | |
| 3 | Apr. 27–May 3 | P1 CES | P1 CES | |
| 4 | May 4–10 | No meetings | | |
| 5 | May 11–17 | P2 Ricardo | P2 Ricardo | |
| 6 | May 18–24 | No meetings | | |
| 7 | May 25–31 | Pentecost break | | |
| 8 | Jun. 1–7 | L4 DFS 2 | L5 Eaton–Kortum 1 | L6 Eaton–Kortum 2 |
| 9 | Jun. 8–14 | P3 DFS | P3 DFS | L7 Heckscher–Ohlin |
| 10 | Jun. 15–21 | P4 Eaton–Kortum | P4 Eaton–Kortum | L8 New Trade Theory |
| 11 | Jun. 22–28 | L9 New New Trade Theory 1 | L10 New New Trade Theory 2 | |
| 12 | Jun. 29–Jul. 5 | P5 New Trade Theory | P5 New Trade Theory | |
| 13 | Jul. 6–12 | P6 New New Trade Theory | P6 New New Trade Theory | |
| 14 | Jul. 13–19 | L11 Gravity / Welfare | L12 Offshoring 1 | L13 Offshoring 2 |
| 15 | Jul. 20–26 | Mock Exam | Q&A | |

# 4. Literature

## Recommended textbook

Feenstra, Robert C. (2016). *Advanced international trade. Theory and evidence*. Second edition. Princeton: Princeton University Press.

## Required readings

Eaton, Jonathan and Samuel Kortum (2002). "Technology, geography, and trade". *Econometrica*, 70(5): 1741–1779.

Krugman, Paul (1979). "Increasing returns, monopolistic competition, and international trade". *Journal of International Economics*, 9(4): 469–479.

Melitz, Marc J. (2003). "The impact of trade on intra-industry reallocations and aggregate industry productivity". *Econometrica*, 71(6): 1695–1725.

## Optional readings

Arkolakis, Costas, Arnaud Costinot, and Andrés Rodríguez-Clare (2012). "New trade models, same old gains?" *American Economic Review*, 102(1): 94–130.

Bernard, Andrew B., J. Bradford Jensen, Stephen J. Redding, and Peter K. Schott (2007). "Firms in international trade". *Journal of Economic Perspectives*, 21(3): 105–130.

— (2018). "Global firms". *Journal of Economic Literature*, 56(2): 565–619.

Dekle, Robert, Jonathan Eaton, and Samuel Kortum (2007). "Unbalanced trade". *American Economic Review*, 97(2): 351–355.

Eaton, Jonathan and Samuel Kortum (2012). "Putting Ricardo to work". *Journal of Economic Perspectives*, 26(2): 65–90.

Helpman, Elhanan and Paul Krugman (1987). *Market structure and foreign trade*. MIT press.

Krugman, Paul (1980). "Scale economies, product differentiation, and the pattern of trade". *American Economic Review*, 70(5): 950–959.

— (2002). "Ricardo's Difficult Idea": http://web.mit.edu/krugman/www/ricardo.htm.

Melitz, Marc J. and Stephen J. Redding (2014). "Heterogeneous firms and trade". *Handbook of international economics*, 4: 1–54.

Yotov, Yoto V. (2022). *Gravity at Sixty: The Bijou of Trade*. Tech. rep. LeBow College of Business, Drexel University.