# University of Waterloo, Department of Economics

# Econ 436/673 Topics in International Trade

# Winter 2018

# Course Outline

(updated: December 9, 2017)

# Horatiu Rus

# **Contact Information:**

Office: Hagey Hall of Humanities, 203 Office hours: Fridays 1-2pm (or by appointment) Email: hrus at uwaterloo dot ca (please include 'econ 436' or 'econ 673' in your subject line!) Twitter: @horatiurus, #econ436\_673

Class time and location: MW 1:00pm-2:20 pm, HH 259 Course materials are available on UW-LEARN.

# **Course Description:**

This graduate/advanced undergraduate course discusses selected international trade theories and some empirical topics representative of recent research. After establishing a common grounding in the method of the dual general equilibrium approach to classical trade theory, the course moves to discuss recent influential theoretical and empirical contributions to the field. Theory, extensions, applications and empirical tests of models such as: increasing returns to scale and imperfect competition, heterogeneous agents, trade policy instruments, gravity models, political economy, offshoring, distributional effects and trade and environment will be covered. The topics are covered using a combination of graphical, mathematical and empirical economics treatments.

### Evaluation:

For Econ 488: Problem sets (20%), midterm exam (30%), consistent class participation (10%) and final exam (40%)

For Econ 673: Problem sets (20%), midterm exam (25%), consistent class participation (10%), short presentation (15%) and final exam or final research project (30%)

The problem sets include several questions based on the material discussed in the lectures or readings. These problem sets are meant to deepen your understanding of the issues and can be explored in small teams. You can work in groups of 2 or 3, but must submit individually drafted versions of the assignment.

Exams will be based on the material covered in class and will consist of several short-answer questions.

The final research project proposal has to be approved in advance by the instructor, if this option is chosen by the graduate student.

# **READINGS**:

There is no required textbook for the course. However, several useful sources are listed below as <u>recommended</u> and will be placed ON RESERVE in UW Library - Porter:

1. Feenstra, Robert and Alan Taylor (2008-2016), *International Trade*, any edition, Pearson/Addison-Wesley.

and

Feenstra, Robert (2004), Advanced International Trade: Theory and Evidence, Princeton University Press. Also available <u>online</u> via the UW Library.

2. Dixit, Avinash K. Norman, Victor (1980), Theory of international trade : a dual, general equilibrium approach, Cambridge University Press.

3. Elhanan Helpman, *Understanding Global Trade*, Harvard University Press (2011) (an entirely non-technical yet rigorous discussion of the evolution of economic thinking about international trade)

4. Helpman, Elhanan and Paul Krugman (1987), Market structure and foreign trade : increasing returns, imperfect competition, and the international economy, MIT Press.

5. Paul Krugman and Maurice Obstfeld (2008-2016), *International Economics: Theory and Policy*, any edition, Pearson/Addison-Wesley.

6. James Markusen, Melvin, Kaempfer and Maskus, *International Trade: Theory and Evidence* download at: http://spot.colorado.edu/~markusen/textbook.html.

### **TENTATIVE LIST OF TOPICS and Readings:**

# Note: The list of topics and readings below is <u>tentative</u> and subject to change, based on class background and interests.

Students are required to read the book chapters and additional readings indicated for every section in class and on the UW-LEARN class page. Please complete the readings for the week prior to class. Each lecture will include a discussion component, where your participation is critical.

The list of topics below is general and tentative. Depending on class level and interest, there may be some changes in the content to accommodate these. Moreover, the broad topics do not strictly correspond to the respective week. Note also that this file will not be updated.

The course webpage on UW-LEARN will provide a detailed list of weekly readings, including information on which readings are required versus recommended for the week and links to some further resources. Normally a campus (or off-campus proxy) internet connection may be required for free access to electronic journals.

# Topic 1: International Trade: Stylized facts. The Gains from Trade

class slides

Helpman and Krugman, 1985, pp. 28-29.

# Topic L2: Introduction to the dual approach to International Trade. A Simple Exchange Model. The transfer problem

Dixit and Norman - chapters 1-3 Woodland - chapter 2

Feenstra, 2003, pp. 179-188.

Yano, Makoto, 1983. "Welfare Aspects of the Transfer Problem," Journal of International Economics, Elsevier, vol. 15(3-4), pages 277-289, November.

### Topic L3: International Trade Driven By Technology Differences: the Ricardian Model

Dornbusch, Rudiger, Stanley Fischer, and Paul A. Samuelson. "Comparative Advantage, Trade, and Payments in a Ricardian Model with a Continuum of Goods." American Economic Review 67 (1977): 823-839.

Deardorff, Alan V. "The General Validity of the Law of Comparative Advantage." Journal of Political Economy, no. 5 (1980): 941-957.

Arnaud Costinot, 2009." An Elementary Theory of Comparative Advantage," Econometrica, Econometric Society, vol. 77(4), pages 1165-1192, 07.

Bernhofen, Daniel, and John Brown. "A Direct Test of the Theory of Comparative Advantage: The Case of Japan." Journal of Political Economy 112, no. 4 (2004): 48-67.

Bernhofen, Daniel M., and John C. Brown. 2005. "An Empirical Assessment of the Comparative Advantage Gains from Trade: Evidence from Japan." American Economic Review, 95(1): 208-225.

Dave Donaldson, Arnaud Costinot and Ivana Komunjer. "What Goods Do Countries Trade? A Quantitative Exploration of Ricardo's Ideas" Review of Economic Studies, 79(2): 581-608, 2012.

Arnaud Costinot and Dave Donaldson. "Ricardo's Theory of Comparative Advantage: Old Idea, New Evidence", AER Papers and Proceedings 2012, 102(3): 453-458.

# **Topic L4: The Specific Factors Model**

Krugman & Obstfeld chapter 3 (ninth or older than seventh versions only) or Feenstra & Taylor chapter 3 or (more advanced) Markusen et al. chapter 9

Helpman: chapter 3

# Topic L5: International Trade Driven by Factor Endowments: the Heckscher-Ohlin-Samuelson Model

Helpman: chapter 2

Dixit and Norman (1980) chapters 4 and 5.

Feenstra (2003) chapters 1, 2, and 3.

Helpman and Krugman (1985) chapter 1.

Deardorff on Lerner Diagrams (http://www-personal.umich.edu/ alandear/writings/Lerner.pdf)

Jones, Ronald W. "The Structure of Simple General Equilibrium Models." Journal of Political Economy 73 (1965):557-572.

Donald R. Davis and David E. Weinstein, 2001. "An Account of Global Factor Trade," American Economic Review, American Economic Association, vol. 91(5), p. 1423-1453.

Williamson and O'Rourke "The Heckscher-Ohlin Model Between 1400 and 2000: When It Explained Factor Price Convergence, When It Did Not, and Why, "NBER Working Papers 7411.

# Topic L6: Extensions and Empirical Tests of the H.O. Model

Donald R. Davis and David E. Weinstein, 2001. "An Account of Global Factor Trade," American Economic Review, American Economic Association, vol. 91(5), pages 1423-1453, December.

Daniel Treer: "International Factor Price Differences: Leontief Was Right!", Journal of Political Economy, University of Chicago Press, vol. 101(6), pages 961-87, December 1993.

Trefler, Daniel, 1995."The Case of the Missing Trade and Other Mysteries," American Economic Review, American Economic Association, vol. 85(5), pages 1029-46, December.

Harrigan, James. "Technology, Factor Supplies, and International Specialization: Estimating the Neoclassical Model." American Economic Review 87, no. 4 (1997): 475-94.

# Topic L7: Increasing Returns. Imperfect Competition and International Trade

Feenstra, ch. 5

Helpman ch. 4

Helpman and Krugman ch. 3, 7, 11

Ethier, "Decreasing Costs in International Trade and Frank Graham's Argument for Protection", Econometrica (1982).

Paul Krugman, "Increasing Returns, Monopolistic Competition and International Trade", Journal of International Economics (1979).

Brander, James A., 1981. "Intra-industry trade in identical commodities," Journal of International Economics, Elsevier, vol. 11(1), pages 1-14, February.

Antweiler, Werner, and Daniel Treffer. 2002. "Increasing Returns and All That: A View from Trade ." American Economic Review, 92(1): 93-119.

Paul Krugman's Nobel Prize Lecture (video)

# **Topic L8: Trade Policy Instruments**

Feenstra ch 7,8

Brander, J. A. and B. Spencer, Tariffs and the Extraction of Foreign Monopoly Rents under Potential Entry, CJE (1981).

Trefler, Daniel. "The Long and Short of the Canada-U.S. Free Trade Agreement." American Economic Review 94, no. 4 (2004): 870-95.

Broda, Christian, Nuno Limao, and David E. Weinstein. 2008. "Optimal Tariffs and Market Power: The Evidence." American Economic Review, 98(5): 2032-65.

# Topic L9: Firms in International Trade. Gravity models

Marc J. Melitz. "The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity" Econometrica, Vol. 71, No. 6 (Nov., 2003), pp. 1695-1725.

Chaney, Thomas. 2008. "Distorted Gravity: The Intensive and Extensive Margins of International Trade." American Economic Review, 98(4): 1707-21.

Melitz, Marc J., and Daniel Trefler. 2012. "Gains from Trade When Firms Matter." Journal of Economic Perspectives, 26(2): 91-118.

Bernard, Andrew B. and J. Bradford Jensen. 2004. Why Some Firms Export. Review of Economics and Statistics.

Bernard, Andrew, Stephen Redding, and Peter Schott. "Comparative Advantage and Heterogeneous Firms." Review of Economic Studies 74, no. 1 (2007): 31-66.

Arkolakis, Costas, Arnaud Costinot, and Andrs Rodrguez-Clare. 2012. "New Trade Models, Same Old Gains?" American Economic Review, 102(1): 94-130.

Anderson, James E., and Eric van Wincoop. "Trade Costs." Journal of Economic Literature 42, no. 3 (2004): 691-751.

Stephen J. Redding, 2011. "Theories of Heterogeneous Firms and Trade," Annual Review of Economics, Annual Reviews, vol. 3(1), pages 77-105, 09.

# Topic L10: Other Topics in Trade

Political Economy:

Grossman, Gene, and Elhanan Helpman. "Protection for Sale." American Economic Review 84, no. 4 (1994): 833-50.

Goldberg, Pinelopi Koujianou and Giovanni Maggi. 1999. Protection for Sale: An Empirical Investigation. American Economic Review.

#### Distributional Effects:

Autor, David H. David Dorn and Gordon H. Hanson. Untangling Trade and Technology: Evidence from Local Labor Markets. NBER Working Paper (2013).

Haskel, Jonathan, Robert Z. Lawrence, Edward E. Leamer, and Matthew J. Slaughter. 2012. "Globalization and U.S. Wages: Modifying Classic Theory to Explain Recent Facts." Journal of Economic Perspectives, 26(2): 119-40.

Elhanan Helpman and Oleg Itskhoki and Stephen Redding, 2010."Inequality and Unemployment in a Global Economy," Econometrica, Econometric Society, vol. 78(4), pages 1239-1283, 07.

Goldberg, Pinelopi Koujianou, and Nina Pavcnik. 2007. "Distributional Effects of Globalization in Developing Countries." Journal of Economic Literature, 45(1): 39-82.

Offshoring:

Grossman, Gene M., and Esteban Rossi-Hansberg. 2008. "Trading Tasks: A Simple Theory of Offshoring." American Economic Review, 98(5): 1978-97.

Trade and the Environment:

Copeland, Brian R. and Taylor, M. Scott, 2005. "Free trade and global warming: a trade theory view of the Kyoto protocol," Journal of Environmental Economics and Management, Elsevier, vol. 49(2), pages 205-234, March.

Antweiler, Werner, Brian R. Copeland, and M. Scott Taylor. 2001. "Is Free Trade Good for the Environment?" American Economic Review, 91(4): 877-908.

### **IMPORTANT NOTES:** please read carefully!

Missing the Midterm Exam: If you miss the midterm exam for a valid reason, such as medical or family emergency, a make-up oral or written examination may be arranged.

Missing the Final Exam: The Department of Economics' policy regarding missed final exams is as follows: A student who has been ill (documentation required) and missed the scheduled final exam MUST petition the Department of Economics Graduate Office within five calendar days to write the Departmental Deferred Examination. If the student has failed to write the Departmental Deferred Examination, the student will automatically receive a grade of 0% for the missed deferred final examination.

### Academic Integrity:

In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility.

#### Discipline:

A student is expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about "rules for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline, http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm.

### Grievance:

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 - Student Petitions and Grievances, Section 4, http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm.

# Appeals:

A student may appeal the finding and/or penalty in a decision made under Policy 70 - Student Petitions and Grievances (other than regarding a petition) or Policy 71 - Student Discipline if a ground for an appeal can be established.

Read Policy 72 - Student Appeals, http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm. Academic Integrity website (Arts):  $http: //arts.uwaterloo.ca/arts/ugrad/academic_responsibility.html Academic Integrity Office (University): <math>http: //uwaterloo.ca/academicintegrity/$ 

#### Note for students with disabilities:

The AccessAbility Services office, located on the first floor of the Needles Hall extension (1401), collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the AS office at the beginning of each academic term.

Mental Health Support All of us need a support system. The faculty and staff in Arts encourage students to seek out mental health supports if they are needed.

On Campus Counselling Services: counselling.services@uwaterloo.ca / 519-888-4567 ext 32655 MATES: one-to-one peer support program offered by Federation of Students (FEDS) and Counselling Services Health Services Emergency service: located across the creek form Student Life Centre

Off campus, 24/7 Good2Talk: Free confidential help line for post-secondary students. Phone: 1-866-925-5454 Grand River Hospital: Emergency care for mental health crisis. Phone: 519-749-433 ext. 6880 Here 24/7: Mental Health and Crisis Service Team. Phone: 1-844-437-3247 OK2BME: set of support services for lesbian, gay, bisexual, transgender or questioning teens in Waterloo. Phone: 519-884-0000 extension 213

Full details can be found online at the Faculty of ARTS website Download UWaterloo and regional mental health resources (PDF) Download the WatSafe app to your phone to quickly access mental health support information

# **Territorial Acknowledgement:**

We acknowledge that we are living and working on the traditional territory of the Attawandaron (also known as Neutral), Anishinaabeg and Haudenosaunee peoples. The University of Waterloo is situated on the Haldimand Tract, the land promised to the Six Nations that includes six miles on each side of the Grand River.