Undergraduate Distance Education Review Form

(Required for all courses taught by distance education for more than one-third of teaching contact hours.)

Existing and Special Topics Course

Course: ECON 345 International Trade

Instructor(s) of Record: Stephanie M. Jozefowicz

Phone: 724-257-2640   **Email:** Stephanie.Jozefowicz@iup.edu

Step Two: Departmental/Dean Approval

Recommendation: ☑ Positive (The objectives of this course can be met via distance education)

☐ Negative

_____   4/29/13
Signature of Department Designee   Date

Endorsed: _____   5/2/13
Signature of College Dean   Date

Forward form and supporting materials to Liberal Studies Office for consideration by the University-wide Undergraduate Curriculum Committee. Dual-level courses also require review by the University-wide Graduate Committee for graduate-level section.

Step Three: University-wide Undergraduate Curriculum Committee Approval

Recommendation: ☑ Positive (The objectives of this course can be met via distance education)

☐ Negative

_Gail S Sechrist_____   9/17/13
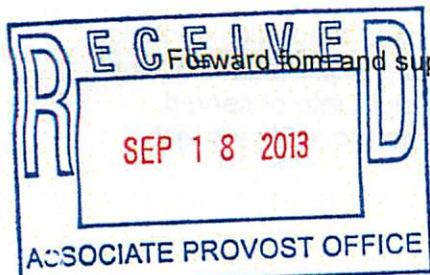Signature of Committee Co-Chair   Date

Forward form and supporting materials to the Provost within 30 calendar days after received by committee.

Step Four: Provost Approval

☑ Approved as distance education course   ☐ Rejected as distance education course

_____   9/18/19
Signature of Provost   Date

Forward form and supporting materials to Associate Provost.

Undergraduate Distance Education Review Directions

Step One: Proposer

A. Provide a brief narrative rationale for each of the items, A1-A5.

1. How is/are the instructor(s) qualified in the distance education delivery method as well as the discipline?

I am a qualified instructor. I have used Moodle and MyEconLab software previously in some of my classes. I have taught some class sections using a hybrid approach to integrate online assignments with other course materials. I also have taught fully online sections of ECON 122 Principles of Microeconomics. When I teach fully online class sections, I have used a range of resources and learning management system (LMS) tools including practice assignments, graded homework and exam assignments, discussion board student-student and student-instructor interaction, internet resources, readings, syllabi and other instructional documents, and lecture notes packets and full lecture PowerPoint files. Within Economics, the textbook companies have sought to develop discipline-specific LMS tools that enable substantively more technical and "pretty" mathematical and graphical analysis required for assessment practices than could be built at an individual level through sole use of Moodle/D2L. There are two primary competing LMS technologies, namely MyEconLab and Aplia. The LMS platform that is paired with an appropriate textbook for this course is Aplia. Aplia is a relatively close substitute to MyEconLab, so my past experience will allow for a fairly smooth adoption. The textbook choice will remain the textbook I have used for the past 13 years of teaching face-to-face class sections of this course.

2. How will each objective in the course be met using distance education technologies?

Note: All assignments will be submitted through Aplia and/or email, per individual assignment instructions. Aplia has the capability for students to submit essays for the instructor to collect and grade. The threaded discussion board and email will both be available as student-student and instructor-student communication tools regarding all assignments and course content.

Instructor-developed Lecture Notes Packet files and Lecture Presentation PowerPoint files will be posted via Aplia for students. The Lecture Notes Packet files are to be printed by students for use while taking notes after launching the Lecture Presentation PowerPoint files in slideshow viewer mode. This allows students to click through the Presentation to see step-by-step knowledge, calculation, and graphical analysis content developed as if students were sitting in a face-to-face class. (These are the same Notes Packet/ PowerPoint files that I indeed use in my face-to-face classes.) In-class discussion that happens in the face-to-face environment will be shifted to the Aplia Discussion Board.

Objective 1: Compare and contrast the theories of trade advanced to explain why nations trade.
Lectures, readings, and associated assignments will develop widely used theoretical models that will allow the student to understand complementary and contrasting explanations of why nations trade. Through the use of these models, students will gain insight into observed trade patterns. Students will be asked to review the historic development of international

trade models through excerpts from works by writers such as Adam Smith, David Ricardo, and/or John Stuart Mills. Lecture notes and PowerPoint presentations reinforce student reading and provide students with additional examples of how to complete problem solving analysis using the range of algebraic and graphical tools necessary for working with the theoretical trade models. Assignments will require students to use the models to critically evaluate the potential issues posed by both hypothetical and recent real-world events reported by mainstream news sources. Homework and exam assignments will require students to use, analyze, and interpret numerical and graphical data. Assignments may include multiple choice, True/False, fill-in-the-blank, Yes/No, and/or calculation entry style questions administered through the LMS (which includes built-in graphing functionality); additional writing assignments may be utilized and will require electronic submission to the instructor.

Objective 2: Assess the impact of free trade on a nation's current standard of living and its future economic growth.
Students will be exposed to this material in readings, lecture notes, and PowerPoint presentation. Lectures, readings, and associated assignments will allow the student to gain insight into how international trade has a direct relationship to a nation's standard of living and economic growth path. Through academic journal readings (available through the IUP library through the EconLit and JSTOR databases) and recent current events news coverage (accessible via mainstream news websites and the IUP library Academic Universe/Lexis-Nexis database), students will be exposed to a range of economic public policy debate topics related to international trade. Discussion will include the potential winners and losers from changing levels of imports and exports. Potential assignments include having students visit websites such as www.nobelprize.org, where students can view streaming videos of the acceptance speeches of award recipients of the Nobel Prize in Economics, some of whose research has been in the area of international economics. Exploration of the "two sides of trade" include writings by economists arguing in favor of international trade and by those leveling criticisms of international trade. Some popular media may be explored (e.g., via YouTube, students may be asked to access a song called, "Red, White, and Pink Slip Blues," which deals with domestic factories closing down as a result of outsourcing). Homework and exam assignments will require students to use the models to critically evaluate the potential arguments in favor of free trade. Assignments may include multiple choice, True/False, fill-in-the-blank, Yes/No, and/or calculation entry style questions administered through the LMS (which includes built-in graphing functionality); additional writing assignments may be utilized and will require electronic submission to the instructor.

Objective 3: Critique why and how governments interfere with trade, as well as the welfare effects of managed trade.
Students will be exposed to this material in readings, lecture notes, and PowerPoint presentation. Lectures, readings, and associated assignments will develop widely used theoretical models that will allow the student to understand how tariffs and various non-tariff barriers reduce levels of imports and exports. An exploration of current U.S. tariff policy will include an in-depth investigation of the United States International Trade Commission website (http://www.usitc.gov/). Homework and exam assignments will require students to use the models to critically evaluate the potential arguments in favor of trade barriers. Assignments will require students to use, analyze, and interpret numerical and graphical data. Assignments may include multiple choice, True/False, fill-in-the-blank, Yes/No, and/or calculation entry style questions administered through the LMS (which includes built-in

graphing functionality); additional writing assignments may be utilized and will require electronic submission to the instructor.

Objective 4: Classify multilateral trade-liberalization agreements, strategic trade policy, and economic sanctions.
Students will be exposed to this material in readings, lecture notes, and PowerPoint presentation. Lectures, readings, and associated assignments will develop widely used theoretical models that will allow the student to understand the historical evolution of various multilateral trade-liberalization agreements. Of particular interest is the transformation of the General Agreement on Tariffs and Trade into the modern-day World Trade Organization. Additionally, discussion will focus on how countries can attempt to grow certain industries through strategic trade policy initiatives, as well as attempt to influence foreign governments through implementation of economic sanctions. Investigation of the websites for entities such as the World Trade Organization (http://www.wto.org/index.htm) and the U.S. Court of International Trade (http://www.cit.uscourts.gov/) may be included. Homework and exam assignments will require students to use the models to critically evaluate the potential problems posed by both hypothetical and real-world events. Assignments will require students to use, analyze, and interpret numerical and graphical data. Assignments may include multiple choice, True/False, fill-in-the-blank, Yes/No, and/or calculation entry style questions administered through the LMS (which includes built-in graphing functionality); additional writing assignments may be utilized and will require electronic submission to the instructor.

Objective 5: Categorize regional trade arrangements, the various stages of economic integration, and case studies of economic integration and regional trading blocs.
Students will be exposed to this material in readings, lecture notes, and PowerPoint presentation. Lectures, readings, and associated assignments will allow the student to better understand the degree to which countries enter into regional trade arrangements and more complete economic integration. Of particular interest is the evolution of the European Union and the European Monetary Union. Additional attention will be paid to NAFTA and other regional trading blocs. This section will rely heavily on the textbook overview of various regional trading blocs. Additional investigation of websites for entities such as the European Union (http://europa.eu/index_en.htm), the Office of the United States Trade Representative (http://www.ustr.gov/), and the Association of Southeast Asian Nations (http://www.aseansec.org/) may be included. Homework and exam assignments will require students to use the models to critically evaluate the benefit and cost trade-offs of different degrees of economic integration. Assignments will require students to use, analyze, and interpret numerical and graphical data. Assignments may include multiple choice, True/False, fill-in-the-blank, Yes/No, and/or calculation entry style questions administered through the LMS (which includes built-in graphing functionality); additional writing assignments may be utilized and will require electronic submission to the instructor.

Objective 6: Examine trade policies for developing nations.
Students will be exposed to this material in readings, lecture notes, and PowerPoint presentation. Lectures, readings, and associated assignments will allow the student to better understand how international trade affects developing nations. Students will be exposed to an overview of how both the benefits and costs of international trade may differ across developing and advanced nations. This section will rely heavily on the textbook overview of issues related to developing nations. Additional investigation of websites for entities such as the United Nations (http://www.un.org/en/) and the World Bank (http://www.worldbank.org/) may be included. Assignments will require students to use the

models to critically evaluate the potential problems faced by the government leaders and citizenry of developed nations. Homework and exam assignments will require students to use, analyze, and interpret numerical and graphical data. Assignments may include multiple choice, True/False, fill-in-the-blank, Yes/No, and/or calculation entry style questions administered through the LMS (which includes built-in graphing functionality); additional writing assignments may be utilized and will require electronic submission to the instructor.

3. How will instructor-student and student-student, if applicable, interaction take place?

The course is designed to promote interaction across both groups of student-student and instructor-student. Multiple channels of communication will be available, and interaction will be required.

Both instructor-student and student-student interaction will be available primarily through email and threaded discussion board participation. Additionally, instructor-student interaction may take place via telephone conversations and/or scheduled face-to-face or online office hours. Students will be encouraged to raise all student-specific grade inquiries directly with the instructor; students will be encouraged to raise all course content and broad course mechanics questions through the threaded discussion board. Participation points will be attached to a minimal level of presence on the discussion board—ideally enough posts to encourage students to figure out how the discussion board works, how they may benefit from Q&A directly, and how they may benefit from reading Q&A posted by other students and the instructor while not too many posts actually required to interfere with the online student's need for a relatively flexible schedule. Students can earn discussion board participation points either by posting questions themselves or by responding to questions other students have posted. Additional threads will be set up such that students can respond to current news topics related to the course and/or other types of application activities.

4. How will student achievement be evaluated?

Student achievement will be evaluated much like it is in a face-to-face class section. Partly, it will depend on whether the class section is designated as W-intensive or not. Non-graded practice problem sets will be made available for early feedback and learning. Graded homework, graded objective and short-answer exams, a current events news journal assignment, possibly additional writing assignments, and participation in a threaded discussion board will all be components of the instructional design.

Assignments will be itemized on the Aplia website. Dates for their final completion will be listed. Assignments will be assessed promptly and grades will be returned to students immediately for all assignments directly graded by Aplia. Criteria for evaluation will be detailed on the syllabus. For example, for essays students will be evaluated on their ability to critically analyze the problem, the degree to which the essay reflects an understanding of the material, and their ability to communicate clearly and effectively.

Example summary of grading :		
	Participation (Discussion Board):	2%
	International Trade Journal:	5%
	Writing Assignments:	5%
	Homework/In-Class Assignments:	14%
	Major Exam #1:	18%

Major Exam #2:	18%
Major Exam #3	18%
Final exam:	_20%_
	100%

Grading scale: The standards are based on the below percentage distribution. Changes to the distribution may be made at the instructor's discretion, but any changes will be strictly in your favor in terms of expanding the ranges to include lower grade percentages. A: 90 - 100%, B: 80 - 89%, C: 70 - 79%, D: 60 - 69%, F: < 60%.

5. How will academic honesty for tests and assignments be addressed?

After reviewing various approaches to dealing with academic honesty, a number of strategies will be used. All exams will be timed for completion and have a closing date and ending time clearly noted on the website. Basic knowledge questions on exams will be drawn from a pooled set of similar questions, allowing for randomization; advanced mathematical calculation/graphing exams questions by design repopulate with different numbers from one student to another.

Many of the writing assignments are updated every semester and require examination of recent data/court cases/current events such that the potential of plagiarism from one semester to another is greatly reduced. For example, students will likely be asked to visit the U.S. Court of International Trade website and examine either two shorter recent court report documents or one longer recent court document; students are given a specific subset of court cases from which to choose, and this subset is chosen by the instructor and updated from one semester to the next.

Additionally, I will monitor writing assignments for inconsistencies in writing style, inconsistencies in expressed understanding of material across writing and objective assignments, and for suspicion of plagiarism. I maintain either hard or electronic copies of prior student work dating back a number of semesters, and I will use the "Turn It In" technology to evaluate any writings that I suspect of plagiarism of published work.

B. Place the Undergraduate Distance Education Review Form on top of the Proposal and then submit to the department or its curriculum committee the responses to items A1-A5, the current official syllabus of record, along with the instructor developed online version of the syllabus, and the sample lesson. This lesson should clearly demonstrate how the distance education instructional format adequately assists students to meet a course objective(s) using online or distance technology. It should relate to one concrete topic area indicated on the syllabus.

Syllabus of Record

I. **Catalog Description**

ECON 345 International Trade   3 class hours
                                                                    0 lab hours
Prerequisites: ECON 121 and ECON 122 or   3 credits
                            Instructor permission

                                                                    (3c-0l-3cr)

A study of the microeconomic segment of international specialization and exchange, including theories of international trade and their application to commercial policies, historical survey and examination of current problems of international trade, and the institutional setting of international trade.

II. **Course Outcomes and Assessment (Expected Undergraduate Student Learning Outcomes—EUSLO).**

At the end of the course, students will be able to:

<u>**Objective 1:**</u>
Compare and contrast the theories of trade advanced to explain why nations trade.
<u>**Expected Undergraduate Student Learning Outcomes 1 and 2:**</u>
Informed and Empowered Learners
<u>**Rationale:**</u>
Lectures, readings, and associated assignments will develop widely used theoretical models that will allow the student to understand complementary and contrasting explanations of why nations trade. Through the use of these models, students will gain insight into observed trade patterns. Assignments will require students to use the models to critically evaluate the potential issues posed by both hypothetical and real-world events. Assignments will require students to use, analyze, and interpret numerical and graphical data.

<u>**Objective 2:**</u>
Assess the impact of free trade on a nation's current standard of living and its future economic growth.
<u>**Expected Undergraduate Student Learning Outcomes 1 and 2:**</u>
Informed and Empowered Learners
<u>**Rationale:**</u>
Lectures, readings, and associated assignments will allow the student to gain insight into how international trade has a direct relationship to a nation's standard of living and economic growth path. Through readings and assignments, students will be exposed to a range of economic public policy debate topics related to international trade. Assignments will require students to use the models to critically evaluate the potential arguments in favor of free trade. Assignments will require students to use, analyze, and interpret numerical and graphical data.

Objective 3:
Critique why and how governments interfere with trade, as well as the welfare effects of managed trade.
Expected Undergraduate Student Learning Outcomes 1 and 2:
Informed and Empowered Learners
Rationale:
Lectures, readings, and associated assignments will develop widely used theoretical models that will allow the student to understand how tariffs and various non-tariff barriers reduce levels of imports and exports. Discussion will include the potential winners and losers from changing levels of imports and exports. Assignments will require students to use the models to critically evaluate the potential arguments in favor of trade barriers. Assignments will require students to use, analyze, and interpret numerical and graphical data.

Objective 4:
Classify multilateral trade-liberalization agreements, strategic trade policy, and economic sanctions.
Expected Undergraduate Student Learning Outcomes 1, 2, and 3:
Informed, Empowered, and Responsible Learners
Rationale:
Lectures, readings, and associated assignments will develop widely used theoretical models that will allow the student to understand the historical evolution of various multilateral trade-liberalization agreements. Of particular interest is the transformation of the General Agreement on Tariffs and Trade into the modern-day World Trade Organization. Additionally, discussion will focus on how countries can attempt to grow certain industries through strategic trade policy initiatives, as well as attempt to influence foreign governments through implementation of economic sanctions. Assignments will require students to use the models to critically evaluate the potential problems posed by both hypothetical and real-world events. Assignments will require students to use, analyze, and interpret numerical and graphical data.

Objective 5:
Categorize regional trade arrangements, the various stages of economic integration, and case studies of economic integration and regional trading blocs.
Expected Undergraduate Student Learning Outcomes 1, 2 and 3:
Informed, Empowered, and Responsible Learners
Rationale:
Lectures, readings, and associated assignments will allow the student to better understand the degree to which countries enter into regional trade arrangements and more complete economic integration. Of particular interest is the evolution of the European Union and the European Monetary Union. Additional attention will be paid to NAFTA and other regional trading blocs. Assignments will require students to use the models to critically evaluate the benefit and cost trade-offs of different degrees of economic integration. Assignments will require students to use, analyze, and interpret numerical and graphical data.

Objective 6:
Examine trade policies for developing nations.
Expected Undergraduate Student Learning Outcomes 1, 2 and 3:
Informed, Empowered, and Responsible Learners
Rationale:

Lectures, readings, and associated assignments will allow the student to better understand how international trade affects developing nations. Students will be exposed to how both the benefits and costs of international trade may differ across developing and advanced nations. Assignments will require students to use the models to critically evaluate the potential problems faced by the government leaders and citizenry of developed nations. Assignments will require students to use, analyze, and interpret numerical and graphical data.

III. Course Outline

A. Trade Theory   **(12.5 hours [12.5])**
1. Globalization of Economic Activity
2. Historical Development of Modern Trade Theory
3. Ricardian Model
4. Hecksher-Ohlin Theorem
5. Factor Price Equalization
6. Empirical Test of Heckscher-Ohlin Theorem
7. Complementary Theories of Trade

Exam 1   **(1 hour [13.5])**

B. Trade Policy: Tariffs   **(10 hours [23.5])**
1. Types and Goals of Tariffs
2. Measuring Protection: Nominal v. Effective Protection
3. Ways to Reduce and/or Avoid Paying Tariffs
4. The Welfare Effects of a Tariff (both the small and large country models)
5. Arguments for Protection

C. Trade Policy: Non-Tariff Trade Barriers   **(7 hours [30.5])**
1. Import Quota
2. Quotas Versus Tariffs
3. Export Quotas
4. Comestic Content Requiremetns
5. Subsidies
6. Other Non-Tariff Barriers
7. Dumping

Exam 2   **(1 hour [31.5])**

D. Trade Regulations and Industrial Policy   **(3.5 hours [35])**
1. Brief History of U.S. Commercial Policy
2. Multilateral Trade Liberalization
3. The General Agreement on Tariffs and Trade
4. The World Trade Organization
5. Strategic Trade Policy
6. Economic Sanctions

E. Regional Trading Arrangements   **(3.5 hours [38.5])**
1. Regional Integration Versus Multilateralism
2. Types of Regional Trading Arrangements
3. The European Union

  4. The European Monetary Union
  5. NAFTA
  6. Other Regional Trading Blocs

 F. Trade Policies for the Developing Nations   (3.5 hours [42])
  1. Developing-Nation Trade Characteristics
  2. Tensions between Developing and Advanced Nations
  3. Trade Problems of the Developing Nations
  4. Economic Growth Strategies: Import Substitution
   Versus Export-Led Growth

    Final Exam (During Finals Week)   (2 hours)

IV. Evaluation Methods

Homework and/or In-class Assignments: 15% of overall grade. Objective homework/in-class assignments will be administered for each chapter covered in the text. The homework/in-class assignments will involve a mixture of questions relating to knowledge of core concepts, quantitative analysis, the application of theoretical models developed in class, and the critical evaluation of outside articles.

International Journal: 5% of overall grade. You will keep a current event journal of news articles related to international economic issues. Articles must include either international trade or international finance issues, but the U.S. does not have to be a part of the focus of the article. You are responsible for finding two articles per week for Weeks 1-10 as listed below in the course outline section. You may clip the articles from a newspaper or news magazine or print the articles from the web. See the separate handout assignment for more details.

Writing Assignments: 5% of overall grade. Periodically, writing assignments will be made. The length of assignments will be specified at the time the assignment is given. Writing assignments will be graded on the basis of organization, content, grammar, and punctuation. You may hand in a rough draft of any writing assignment one week before the due date for instructor feedback regarding the quality of your work and suggestions for improvement.

Content Exams: 50% of overall grade. There will be two content exams (each worth 25% of the overall grade) throughout the semester. The content exams will not be comprehensive, meaning that each of the content exams will only cover the information discussed in the prior section(s). Exam questions will stress analysis including short essay questions, numerical problem solving, and defining economic terms or concepts. Using graphs to illustrate your reasoning is a critical part of answering most short essay questions.

Final Exam: 25% of overall grade. The final exam will be scheduled for finals week. The final exam will have the same format as the major exams. The final exam will be comprehensive, covering all of the course material for the whole semester. Exam questions will stress analysis including short essay questions, numerical problem solving, and defining economic terms or concepts. Using graphs to illustrate your reasoning is a critical part of answering most short essay questions.

V.   Grading Scale

Grading: Grades will be assigned using the standard scale. Your total number of points will be averaged, and letter grades will be assigned as follows:

A = 90 to 100%
B = 80 to 89%
C = 70 to 79%
D = 60 to 69%
F = Below 60%

VI.   Attendance Policy

To be consistent with the Undergraduate Course Attendance Policy as outlined in the IUP Undergraduate Catalog.

VII.   Required Course Material

(Text) Carbaugh, Robert. *International Economics.* 14th ed. South-Western, Cengage Learning. 2013.

Supplemental articles will be assigned through the semester and either distributed in class or made available on-line.

VIII.   Special Resource Requirements

None

IX.   Bibliography

Textbooks

Appleyard, Dennis R., and Alfred J. Field. *International Economics.* 8th ed. McGraw-Hill Higher Education, 2014. Print.

Carbaugh, Robert. *International Economics.* 14th ed. South-Western, Cengage Learning. 2013. Print.

Caves, Richard E., Jeffrey A. Frankel, and Ronald W. Jones. *World Trade and Payments: An Introduction.* 10th ed. Prentice Hall. 2007. Print.

Feenstra, Robert C., and Alan M. Taylor. *International Economics.* 2nd ed. Worth Publishers. 2011. Print.

Gerber, James. *International Economics.* 6th ed. Prentice Hall. 2014. Print.

Husted, Steven, and Michael Melvin. *International Economics.* 9th ed. Prentice Hall. 2013. Print.

Krugman, Paul R., Maurice Obstfeld, and Marc Melitz. *International Economics.* 9th ed. Prentice Hall. 2012. Print.

McLaren, John. *International Trade.* John Wiley & Sons. 2013. Print.

Pugel, Thomas. *International Economics.* 15th ed. McGraw-Hill Higher Education, 2012. Print.

Salvatore, Dominick. *International Economics. 11th ed.* John Wiley & Sons. 2013. Print.

General Readings

Barton, John H., Judith L. Goldstein, Timothy E. Josling, and Richard H. Steinberg. *The Evolution of the Trade Regime: Politics, Law, and Economics of the GATT and the WTO.* Princeton University Press. 2008. Print.

Bhagwati, Jagdish. *Free Trade Today.* Princeton University Press. 2003. Print.

Bongiorni, Sara. *A Year without "Made in China": One Family's True Life Adventure in the Global Economy.* John Wiley & Sons, Inc. 2007. Print.

Davis, Christina L. *Why Adjudicate? Enforcing Trade Rules in the WTO.* Princeton University Press. 2012. Print.

Greenaway. David. *The World Economy: Global Trade Policy 2012.* Wiley-Blackwell. 2013. Print.

Harold, James. *Making the European Monetary Union.* Harvard University Press. 2012. Print.

Helpman, Elhanan. *Understanding Global Trade.* Harvard University Press. 2011. Print.

Khanna, Ro. *Entrepreneurial Nation: Why Manufacturing Is Still Key to America's Future.* McGraw-Hill Higher Education. 2013. Print.

King, Philip G., and Sharmila Kumari King. *International Economics, Globalization, and Policy: A Reader.* 5th ed. McGraw-Hill Higher Education. 2009. Print.

Mansfield, Edward D., and Helen V. Milner. *Votes, Vetoes, and the Political Economy of International Trade Agreements.* Princeton University Press. 2012. Print.

Orlik, Thomas. *Understanding China's Economic Indicators: Translating the Data into Investment Opportunities.* FT Press. 2012. Print.

Rieger, Bernhard. *The People's Car: A Global History of the Volkswagen Beetle.* Harvard University Press. 2013. Print.

Rivoli, Pietra. *The Travels of a T-Shirt in the Global Economy: An Economist Examines the Markets, Power, and Politics of World Trade.* 2nd ed. John Wiley & Sons. 2009. Print.

Roberts, Russell. *The Choice: A Fable of Free Trade and Protection.* 3rd ed. Prentice Hall. 2007. Print.

Smith, Adam. *An Inquiry into the Nature and Causes of the Wealth of Nations.* New York: Modern Library, 1937. Print.

Warburton, Christopher E. *LSC ICJ701: The Delicts & Criminal Laws of International Economic Relations.* McGraw-Hill Higher Education. 2012. Print.

ECON 345—801 International Trade
Course Syllabus

Instructor:	Dr. Stephanie M. (Brewer) Jozefowicz
Email:	Stephanie.Jozefowicz@iup.edu
Economics Dept. Phone:	724-357-2640
My Office Location:	McElhaney Hall 202B
My Office Phone:	724-357-2642
Office Hours:	Tuesdays 9:00-10:45 am and 12:45 - 1:15 pm Wednesdays 2:00 - 2:30 pm Thursdays 9:00 - 10:45 am or by appointment
Course Prerequisites:	ECON 121 and ECON 122, or permission of the instructor
Course Description:	Study of the microeconomic segment of international specialization and exchange, including theories of international trade and their application to commercial policies; historical survey and examination of current problems of international trade; and the institutional setting of international trade.
Course Objectives:	This course aims at helping students understand: 1) The theories of trade advanced to explain why nations trade. 2) The impact of free trade on a nation's current standard of living and its future economic growth. 3) National commercial policies, why and how governments interfere with trade, and the welfare effects of managed trade. 4) Multilateral trade-liberalization agreements—the General Agreement on Tariffs and Trade and the World Trade Organization. 5) Customs union theory; the various stages of economic integration, and case studies in economic integration. This course also aims to improve student writing through a variety of writing opportunities both in and out of the classroom.

Summary Structure of the Online Course

In terms of overall course structure, course content and homework/exam assignments are organized into three groupings. These groupings roughly correspond to month-long time periods. Writing assignments will have separate, individually announced deadlines. More details about assignments and grading are included in another portion of the syllabus but are summarized in the following table:

Grouping	Dates to Complete Work	Chapters Covered	Type(s) of Assignments	Due Date for Assignments*
1	Aug. 26-Oct. 4	Ch. 1, 2, 3	HW, Major Exam #1	11:59 pm, Friday, October 4
2	Oct. 5-Nov. 1	Ch. 4, 5	HW, Major Exam #2	11:59 pm, Friday, November 1
3	Nov. 2-Dec. 6	Ch. 6, 7, 8	HW, Major Exam #3	11:59 pm, Friday, December 6
	Dec. 7-Dec. 13	Ch. 1-8	Final Exam	11:59 pm, Friday, December 13

* All Homework, Major Exams, the Final Exam, Participation/Bonus Points, and Extra-Credit assignment(s) will be accepted up to *11:59 pm* on their respective due date. Waiting until the evening of a given due date to begin working on a given group of assignments may mean that you run out of time before you are able to complete all of the assignments. Furthermore, we all know that sometimes the electric power goes off, computer servers crash, computers malfunction, people get sick, etc. If you wait until the proverbial "last minute" (let's say the last 48 hours) to begin working on a group of assignments, then you bear the risks of that time management strategy. *Once 11:59 pm on a given due date has come and gone, NO late Aplia assignments will be accepted.* Period. I am serious about this. In previous semesters I have had students who have missed one or more assignments for a given due date, and I have NOT reopened those assignments when the affected students have contacted me after the deadline has passed. If you know in advance that some major life issue may be interfering with a given due date, then you need to talk directly with me about the situation—I may be able to work out a mutually acceptable arrangement regarding completion of the assignments, but only if you have contacted me at least 48 hours in advance of the due date (i.e., by 11:59 pm on the Wednesday immediately preceding a given Friday due date).

Textbook and Supplemental Readings

Robert J. Carbaugh, <u>International Economics</u>, 14th edition: The textbook is designed to facilitate learning both inside and outside the classroom. Reading assignments from the text are included on the course outline. You will know what you should be reading if you check the course outline. Instructor-developed lecture notes and PowerPoint presentation materials will be provided by the instructor in addition to the textbook readings. Lecture presentation materials will make more sense if you read the text first; the text will make more sense if you work your way through the lecture material first. Although exam questions are based on the lecture material, the text parallels the lectures. Hence, the readings in the text should be thought of as a supplement to the lecture material.

Supplemental Readings: I will regularly assign readings that range from academic journal articles to popular press news articles to political cartoons. I may request that you access a given assigned reading posted on Aplia, an alternate specified website, the I: drive, or a site accessible through the IUP Libraries web pages.

Assignments and Grading Policy

International Journal: You will keep a current event journal of news articles related to international economic issues. Articles must include either international trade or international finance issues, but the U.S. does not have to be a part of the focus of the article. You are responsible for finding two articles per week for Weeks 1-10 as listed below in the course outline section. You will need to collect news articles either from online mainstream news sources or by using the IUP Library accessible database called Academic Universe (Lexis-Nexis). The completed journal, along with a journal paper based on the collected news articles, will be <u>due Friday, April 12 by 11:59 pm</u> and should be submitted via Aplia. The combined journal and journal paper assignment will account for 5% of your final course grade. *See the separate handout assignment for more details.*

Writing Assignments: Periodically, writing assignments will be made. Whether you graduate and enter the work force or continue in school for an advanced degree, communicating through writing will be a necessary and often used tool skill for you. Hence, I consider using writing as

another instructional goal for this course. Writing assignments should be formatted with one inch margins, use Times New Roman or Arial 11-point font, and be double-spaced. The length of assignments will be specified at the time the assignment is given. Writing assignments will be graded on the basis of organization, content, grammar, and punctuation. Writing assignments should be submitted via Aplia. You may submit a rough draft of any writing assignment one week before the due date for instructor feedback regarding the quality of your work and suggestions for improvement. Writing assignments will comprise 5% of your final course grade.

Homework Assignments: Periodically homework assignments will be made. These assignments may be problems from the text or other materials that I prepare. Homework will be accessible via Aplia and should be submitted via Aplia. Homework will count as 14% of your final course grade.

Class Participation: I believe class participation is linked with how well students learn and perform on exams. All students will be expected to participate in the Aplia Discussion Board. Participation points may be earned by posting either questions or answers within designated Discussion Board threads. Participation will count as 2% of your final semester grade.

Major exams: There will be three major exams given during the semester via Aplia. Each exam will be worth 100 points, and each will count as 18% of your final semester grade.

Final exam: There will be a final exam given during the week of IUP Final Exams. The final exam will have the same format as the major exams, and it will be administered via Aplia. The final exam will be comprehensive, covering all of the course material for the whole semester. The final exam will count as 20% of your final semester grade.

Extra-credit: Under no circumstances will I give extra-credit work to individual students. However, during the semester, I may offer optional class exercises for which extra-credit points can be earned. Offering opportunities for extra-credit is subject to my discretion.

Grading scale: The standards are based on the below percentage distribution. Changes to the distribution may be made at the instructor's discretion, but any changes will be strictly in your favor in terms of expanding the ranges to include lower grade percentages. A: 90 - 100%, B: 80 - 89%, C: 70 - 79%, D: 60 - 69%, F: < 60%.

Summary of grading :		
Participation (Discussion Board):	2%
International Trade Journal:	5%
Writing Assignments:	5%
Homework/In-Class Assignments:	14%
Major Exam #1:	18%
Major Exam #2:	18%
Major Exam #3	18%
Final exam:	20%
	100%

Miscellaneous

Many students may find it beneficial to discuss the course material with one another. You are encouraged to share helpful suggestions for studying and mastering the material. There is an underlying principle of learning when working together in small groups like this—you can

determine what you know as you are forced to explain the concepts and problem solutions to one another. I encourage use of the Discussion Board for student-student, as well as student-instructor conversation. While a minimum level of Discussion Board participation is being required as part of the course grading policy, I encourage you to engage in more than the minimum level for both your own individual benefit, as well as improving overall class dynamics.

I follow the policy outlined in the IUP Academic Integrity Policy and Procedures with regard to cheating and academic dishonesty. I will give an incomplete only for the specific reasons outlined in the IUP Incomplete policy, so please don't ask for exceptions to these rules. Both policies can be found in the Undergraduate Catalog 2012-2013.

If you historically have not regularly checked your IUP email, you should begin to do so. I sometimes may email the class information, and I only will use your assigned IUP email address. Furthermore, I ask that you only use your IUP email account to email me (you can use the I-mail web interface from any computer if you don't have Outlook Express or other similar program set up for your IUP email address) and that you include "ECON 345" as the first part of the subject line. We're all overwhelmed by junk mail, and this should aid our communication with one another so that we don't accidentally delete important messages.

One IUP service that you may wish to explore: the Writing Center (http://www.iup.edu/writingcenter). If you qualify for services through the IUP Advising and Testing office, please talk with me sooner rather than later about which accommodations you plan to seek if they are directly related to this course.

I will be available for questions or comments about class during my office hours. I will arrange to see you by appointment if you are not able to come see me during the designated office hours. Please talk with me to arrange any appointments.

Summary of Important Dates for the Semester, Course Chapter Coverage, and Suggested End-of-Chapter Study Questions

Note: The following Study Questions will be considered "fair game" for exam coverage unless otherwise specifically noted in class. While some questions may be formally assigned and graded as part of homework assignments, non-assigned questions remain as "fair game." Additional questions may be added to the list via Aplia announcement postings.

Week 1: Jan. 28-Feb. 3	Ch. 1: The International Economy and Globalization (#2, 3, 7, 8, 10) **Drop on Banner ends: Saturday, February 2** **Add on Banner ends: Sunday, February 3**
Week 2: Feb. 4-10	Ch. 2: Foundations of Modern Trade Theory (#1, 2, 3, 6, 10, 12, 14, 16, 17)
Week 3: Feb. 11-17	Ch. 2: Foundations of Modern Trade Theory (#1, 2, 3, 6, 10, 12, 14, 16, 17)
Week 4: Feb. 18-24	Ch. 3: Sources of Comparative Advantage (#1, 2, 3, 5, 7, 8, 9, 10, 11, 13)
Week 5: Feb. 25-Mar. 3	Ch. 3: Sources of Comparative Advantage (#1, 2, 3, 5, 7, 8, 9, 10, 11, 13) *MAJOR EXAM #1: due by 11:59 pm (i.e., midnight), Friday, March 1*
Week 6: Mar. 4-10	Ch. 4: Tariffs (#1, 2, 5, 6, 7, 8, 9, 13, 14, 15)
Week 7: Mar. 11-17	Ch. 4: Tariffs (#1, 2, 5, 6, 7, 8, 9, 13, 14, 15)
Week 8: Mar. 18-24	**No classes university-wide (Spring Break): March 18-24 (Monday-Sunday)**
Week 9: Mar. 25-31	Ch. 5: Nontariff Trade Barriers (#1, 2, 4, 6, 7, 9, 10, 16)
Week 10: Apr. 1-7	**Students can view mid-term grades on Banner: Monday, April 1, 8:00 am** Ch. 5: Nontariff Trade Barriers (#1, 2, 4, 6, 7, 9, 10, 16) *MAJOR EXAM #2: due by 11:59 pm (i.e., midnight), Friday, April 5*
Week 11: Apr. 8-14	Ch. 6: Trade Regulations and Industrial Policies (#1, 2, 3, 4, 6, 7, 9, 11, 12) *International Trade Journal/Journal Paper due by 11:59 pm, Friday, April 12* **Individual Course Withdrawal Deadline: Friday, April 12**
Week 12: Apr. 15-21	Ch. 6: Trade Regulations and Industrial Policies (#1, 2, 3, 4, 6, 7, 9, 11, 12) **Total Semester Withdrawal Deadline: Friday, April 19**
Week 13: Apr. 22-28	Ch. 7: Trade Policies for the Developing Nations (#1, 5, 6, 8, 10)
Week 14: Apr. 29-May 5	Ch. 7: Trade Policies for the Developing Nations (#1, 5, 6, 8, 10) Ch. 8: Regional Trading Arrangements (#2, 3, 4, 6)
Week 15: May 5-May 12	Ch. 8: Regional Trading Arrangements (#2, 3, 4, 6) *MAJOR EXAM #3: due by 11:59 pm (i.e., midnight), Friday, April 9*
Week 16: May 13-16	**Last Day of Classes: Friday, May 10** **Final Exam: due by 11:59 pm (i.e., midnight), Thursday, May 16** **Spring 2013 Commencement: Saturday, May 18** **Spring 2013 Semester Grades Available on Banner: Friday, May 24, 8:00 am**

DR. S. JOZEFOWICZ'S TOP TEN LIST FOR A SUCCESSFUL SEMESTER:

1. Check Aplia website and your IUP email regularly. You are responsible for reading announcement postings and/or email sent to your IUP email account by your instructor. Remember that in my case, I'm only using D2L as an initial entry point for the course and will not be making updates there beyond what is posted at the beginning of the semester to get started.

2. You are responsible for completing all assignments by their respective due date. Be sure you are keeping track and not waiting until the last minute to complete the range of homework and major exam assignments.

3. KEEP UP—the materials build as the semester progresses—very few students can succeed by just studying the night before the exam. You have many opportunities for working on sample exam questions between formal Aplia homework assignments and other practice materials I may make available. Students who perform at the top of the class generally are the ones who diligently work on these practice materials and ask questions as they go about what they discover they don't understand as well as they thought they did.

4. Don't just print the completed PowerPoint presentation slides or view them without taking notes. Rather, print the chapter notes packets provided for you in the "Notes Packets" folder through the Aplia website. Then use the notes packets to thoughtfully work through PowerPoint presentation slides located in the "Lecture Notes" folder through the Aplia website.

5. As you thoughtfully work through full PowerPoint presentation slides using the notes packets as discussed above, take excellent notes as if you were in a face-to-face classroom. Furthermore, add your own insights and personalized examples of the concepts covered rather than just filling in the blanks of the definitions or copying the graphs. The more personally meaningful you make the material, the more this will help you as you work on assignments and as you study for exams. For each section of notes, go back and think about how you can reorganize them so they make sense to you (students have found that making flow diagrams can help connect the material in a personally meaningful way).

6. If at all possible, make use of office hours—clear up questions as they arise and are fresh on your mind...the additional one-on-one attention does wonders for truly comprehending the material.

7. Don't forget about the Discussion Board within Aplia website. Remember that Participation Points are based on you making question and/or answer response posts on the Discussion Board. Furthermore, Q&A postings on the Aplia Discussion Board may enhance your own studying/learning experiences.

8. Realize at the outset that you may have to really buckle down and approach studying for this class differently. This class will require much more than basic memorization and regurgitation of definitions. This class has the reputation of being "hard" for a reason. Merely clicking through assignments at break-neck speed is likely to be insufficient to secure an "A" or even a "B" letter grade. You should plan on allocating sufficient time to read the textbook chapters, thoughtfully work your way through the PowerPoint presentations, post questions and/or question responses on the Discussion Board, complete homework/exam assignments by their respective due dates, and work on practice problems from Aplia and the textbook beyond any formal homework assignments as needed to prepare for exams. Historically undergraduate students have been advised time and again to plan on spending 3 hours studying outside of class for every hour of official class time....

9. You have tremendous flexibility to complete assignments at your own pace in an online environment. Don't let this flexibility be your downfall! As your instructor, I will do my best to provide necessary structure and feedback within this environment. You must take responsibility for your own learning within this environment. The most frequent comment I hear from students reflecting on their performance in the online course is that they waited too long to get started on each section of material.

10. Just as you expect to be treated with respect, remember to treat your fellow students and me with the same high level of respect.

How to access your Aplia course

Instructor: Stephanie M Jozefowicz
Start Date: 01/28/2013
Course Key: UXXG-RRKH-72YT

Registration

Aplia is part of CengageBrain, which allows you to sign in to a single site to access your Cengage materials and courses.

A. Connect to http://login.cengagebrain.com/
B. **If you already have an account, sign in.** From your Dashboard, enter your course key (**UXXG-RRKH-72YT**) in the box provided, and click the *Register* button.
    If you don't have an account, click the *Create a New Account* button, and enter your course key when prompted: **UXXG-RRKH-72YT**. Continue to follow the on-screen instructions.

Payment

Online: After registering, you can buy access to Aplia from myhome.cengagebrain.com.

Bookstore: Purchase access to Aplia from your bookstore. Check with the bookstore to find out what they offer for your course.

After paying, you will have the option to purchase a physical book at a discounted price. If you choose to pay later, you can use Aplia without paying until 11:59 PM on 02/17/2013.

Aplia Home/Announcement Page

aplia™

Announcements

→ **Add an Announcement**

Display Date	Announcement		
Th, 02.21.13 10:00 PM	Welcome to ECON 345 International Trade! If you have accessed this Aplia course material, you should be registered for my Spring 2013 ECON 345--801 course (Dr. Stephanie M. Jozefowicz listed as the instructor of record). I have selected the the 14e (14th edition) version of Carbaugh: International Economics textbook for use this semester, and I am requiring you to use Aplia for submission of graded assignments. This online class will cover Chapters 1-8. In addition to using the textbook, I may ask you to access other readings. Throughout the semester you should plan on printing the Notes Packet files that are an outline of each chapter designed for you to fill in as you move through the separate Lecture Notes files. These packets will be posted within Aplia. Please note that these files are the same ones I utilize in my face-to-face classes. I am looking forward to this semester, and I hope you are, as well.	Edit	Delete

→ **Add an Announcement**

Sample Aplia Assignment (Objective 1)

aplia

Problem Set

Foundations of Modern Trade Theory: Comparative Advantage   Printer-friendly Version | Show Answer

View All Questions | Go to: [Question 1 ▼] [Go]

Question 1: The difference between absolute and comparative advantage   [Edit] [Delete]

1. The difference between absolute and comparative advantage   Aa Aa 🖥

Victor and Sondra run a catering business in which they have two major tasks: getting new clients and preparing food for events and parties. It takes Victor 4 hours to prepare the food for an event and 2 hours of effort to get each new client. For Sondra, it takes 15 hours to prepare food for an event and 3 hours to get a new client.

In this scenario, _____ has an absolute advantage in food preparation, and _____ has a comparative advantage in food preparation.

Suppose that initially, Victor and Sondra are splitting both tasks for a large number of events. Then they decide to start shifting some work according to the principle of comparative advantage. In particular, the person with the comparative advantage in food preparation will take over preparing food for one more event, and the other person will use the freed-up time to get more clients. As a result, the total number of events for which food is prepared will remain unchanged, but the number of new clients will increase by _____ .

❖ Grade It Now

[◄ Previous] [Next ►]

View All Questions | Go to: [Question 1 ▼] [Go]

Up to: Question List

2. Absolute and comparative advantage

Aa Aa 🖳

Consider two neighboring island countries, Contente and Felicidad. Each has 24,000 labor hours available per month that it can use to produce corn, jeans, or a combination of both. The following table shows the amount of labor hours required to produce one bushel of corn or one pair of jeans.

	Corn	Jeans
	(Labor hours per bushel)	(Labor hours per pair)
Contente	48	12
Felicidad	20	10

_____ has an absolute advantage in the production of corn, and _____ has an absolute advantage in the production of jeans.

Initially, suppose Contente uses 18,000 hours of labor per month to produce corn and 6,000 hours per month to produce jeans, while Felicidad uses 6,000 hours of labor per month to produce corn and 18,000 hours per month to produce jeans. Consequently, Contente produces 375 bushels of corn and 500 pairs of jeans, and Felicidad produces 300 bushels of corn and 1,800 pairs of jeans. Assume there are no other countries willing to trade goods, so in the absence of trade between these two countries, each country consumes the amount of corn and jeans it produces.

Contente's opportunity cost of producing one bushel of corn is _____ of jeans, and Felicidad's opportunity cost of producing one bushel of corn is _____ of jeans. Therefore, _____ has a comparative advantage in the production of corn, and _____ has a comparative advantage in the production of jeans.

Suppose that Contente completely specializes in the production of the good in which it has a comparative advantage, producing **only** that good. It will produce _____ _____ .

Suppose also that Felicidad does not specialize and uses 18,000 hours of labor to produce corn and 6,000 hours of labor to produce jeans. It will produce _____ bushels of corn and _____ pairs of jeans.

Suppose Contente and Felicidad agree to trade with each other, exchanging 450 bushels of corn for 1,350 pairs of jeans. In particular, Contente will export the goods it produces and Felicidad will export the goods that Contente does not produce.

With trade, Contente will _____ corn and _____ jeans. Felicidad will _____ corn and _____ jeans.

When neither country specializes, the total production of corn is _____ bushels per month, and the total production of jeans is _____ pairs per month.

When Contente specializes and Felicidad still produces the combination of goods using 18,000 hours of labor to produce corn and 6,000 hours of labor to produce jeans, the total production of corn becomes _____ bushels per month, and the total production of jeans became _____ pairs per month.

❖ Grade It Now

3. Comparative advantage and gains from trade

Aa Aa

Consider two neighboring island countries called Felicidad and Contente. They each have 4 million labor hours available per month that they can use to produce corn, jeans, or a combination of both. The following table shows the quantity of corn or jeans that can be produced using one hour of labor.

	Corn	Jeans
	(Bushels per hour of labor)	(Pairs per hour of labor)
Felicidad	4	16
Contente	6	12

Initially, suppose Contente uses 1 million hours of labor per month to produce corn and 3 million hours per month to produce jeans, while Felicidad uses 3 million hours of labor per month to produce corn and 1 million hours per month to produce jeans. Consequently, Felicidad produces 12 million bushels of corn and 16 million pairs of jeans, and Contente produces 6 million bushels of corn and 36 million pairs of jeans. Assume there are no other countries willing to trade goods, so in the absence of trade between these two countries, each country consumes the quantity of corn and jeans it produces.

Felicidad's opportunity cost of producing one bushel of corn is _____ of jeans, and Contente's opportunity cost of producing one bushel of corn is _____ of jeans. Therefore, _____ has a comparative advantage in the production of corn and _____ has a comparative advantage in the production of jeans.

Suppose that each country completely specializes in the production of the good in which it has a comparative advantage, producing **only** that good. In this case, the country that produces corn will produce _____ bushels per month, and the country that produces jeans will produce _____ pairs per month. In the table at the end of this problem, enter each country's production decision on the second row (marked "Production").

Suppose the country that produces corn trades 14 million bushels of corn to the other country in exchange for 42 million pairs of jeans. In the table at the end of this problem, select the quantity of each good that each country exports and imports in the boxes across the row marked "Trade Action," and enter each country's final consumption of each good on the line marked "Consumption."

When the two countries did not specialize, the total production of corn was 18 million bushels per month and the total production of jeans was 52 million pairs per month. Because of specialization, the total production of corn has increased by _____ bushels per month, and the total production of jeans has increased by _____ pairs per month. Because the two countries produce more corn and more jeans under specialization, each country is able to gain from trade. Calculate the gains from trade—that is, the amount by which each country has increased its consumption of each good relative to the first row of the table. In the table, enter this difference in the boxes across the last row (marked "Increase in consumption").

	Felicidad		Contente	
	Corn	Jeans	Corn	Jeans
	(Millions of bushels)	(Millions of pairs)	(Millions of bushels)	(Millions of pairs)
Without Trade				
Prod. and consumption	12	16	6	36
With Trade				
Production				
Trade Action	▼	▼	▼	▼
Consumption				
Gains from Trade				
Increase in consumption				

❖ Grade It Now

4. Specialization and trade

Economists believe that when two countries specialize and trade, each country will be able to buy the goods in which the other specializes at a lower cost than it would take to produce those goods themselves.
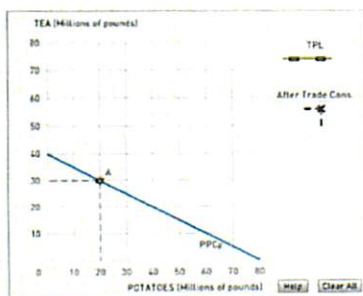
The following graphs show the production possibilities schedules (PPCs) for Freedonia and Sylvania. Both countries produce tea and potatoes. Without specialization and trade, both countries produce 30 million pounds of tea and 20 million pounds of potatoes, as indicated by the grey stars marked A. Assume that when Freedonia and Sylvania open to international trade, they trade with many other countries, as well with each other.

Freedonia   **Sylvania**
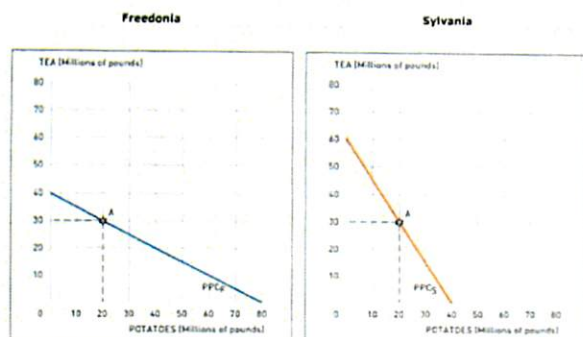
Freedonia has a comparative advantage in the production of _____ , while Sylvania has a comparative advantage in the production of _____ . If each fully specializes (that is, produces only the good for which each has a comparative advantage), the most the two countries can produce is _____ pounds of tea and _____ pounds of potatoes.

Suppose that Freedonia and Sylvania specialize and open up to international trade, and the terms of trade in the world market are 1 pound of potatoes for 1 pound of tea. That is, Sylvania is willing to sell Freedonia 1 pound of tea in exchange for 1 pound of potatoes, and Freedonia is willing to sell Sylvania 1 pound of potatoes in exchange for 1 pound of tea. The countries decide to exchange 30 million pounds of Freedonian potatoes for 30 million pounds of Sylvanian tea.

The following graph shows the production possibilities schedule for Freedonia. Use the tan line (dash symbols) to plot the trading possibilities line for Freedonia. Then place a black point (X symbol) on the trading possibilities line to indicate Freedonia's consumption after specialization and trade.

The following graph shows the production possibilities schedule for Sylvania. As you did for Freedonia, use the tan line (dash symbols) to plot the trading possibilities line for Sylvania, and place a black point (X symbol) on the trading possibilities line to indicate Sylvania's consumption after specialization and trade.
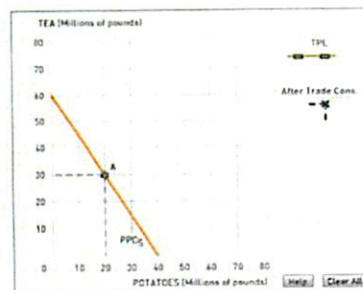
Sylvania and Freedonia _____ have been able to consume at the after-trade consumption bundles you found if they did not engage in international trade.

◆ Grade It Now

5. Trading under increasing opportunity costs

Aa Aa

The following graph shows the production possibilities schedule for the imaginary country of Contente under conditions of increasing costs. In the absence of trade, the relative cost of rice in Contente in terms of machines (or the marginal rate of transformation (MRT) of rice into machines) is shown by the slope of line t_1, tangent to the production possibilities schedule at point A. Use the graph to answer the following questions.

RICE (Bushels)

Post-trade consum

MACHINES   Help   Clear All
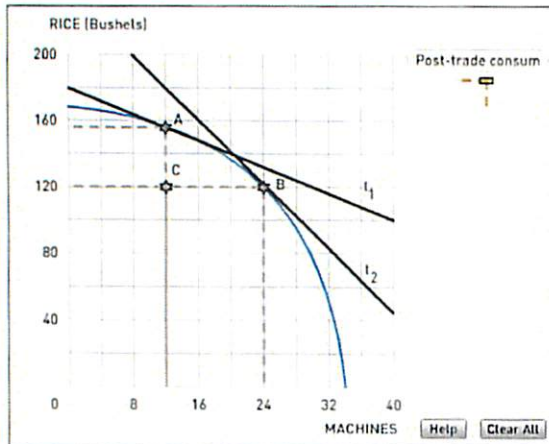
Which of the following most accurately describes Contente's economy in the absence of trade?

O Contente produces 156 bushels of rice but consumes only 120 bushels of rice.
O Contente produces and consumes 12 machines and 120 bushels of rice.
O Contente consumes 12 machines and 156 bushels of rice.
O Contente produces 12 machines and 156 bushels of rice.
O Contente produces and consumes 12 machines and 156 bushels of rice.

The slope of line t_1 reveals that Contente must forego _____ in order to produce 1 _____ . **Hint:** To see the slope of the curve, pass the cursor over the diagram.

Suppose that Contente recognizes that it has a comparative advantage in the production of machines. Contente decides to specialize in making machines and enters international trade. The international terms of trade (the price of rice in terms of machines) are shown by the slope of the line t_2, tangent to the production possibilities schedule at point B. The slope of t_2 reveals that now Contente foregoes _____ in order to produce one _____ . This means that the absolute slope of the production possibilities schedule _____ .

Assume that Contente chooses to consume the same number of machines as it did in the absence of trade. Use the drop lines (the olive rectangle) to identify on the graph the post-trade consumption point.

According to the graph, Contente's production gain from specialization is _____ and its consumption gain from trade is _____ .

❖ Grade It Now

Question 6: Terms of trade

6. Terms of trade

Aa Aa

Suppose that Sweden and Portugal both produce oil and stained glass. Sweden's opportunity cost of producing a pane of stained glass is 8 barrels of oil, while Portugal's opportunity cost of producing a pane of stained glass is 5 barrels of oil.

By comparing the opportunity costs of producing stained glass in the two countries, you can tell that _____ has a comparative advantage in the production of stained glass and _____ has a comparative advantage in the production of oil.

Suppose that Portugal and Sweden consider trading stained glass and oil with each other. Portugal can gain from specialization and trade as long as it receives more than _____ of oil for each pane of stained glass it exports to Sweden. Similarly, Sweden can gain from trade as long as it receives more than _____ of stained glass for each barrel of oil it exports to Portugal.

Based on your answer to the last question, which of the following terms of trade (that is, price of stained glass in terms of oil) would allow both Sweden and Portugal to gain from trade? Check all that apply.

- ☐ 7 barrels of oil per pane of stained glass
- ☐ 1 barrel of oil per pane of stained glass
- ☐ 6 barrels of oil per pane of stained glass
- ☐ 4 barrels of oil per pane of stained glass

✧ Grade It Now

Question 7: The logic of service outsourcing - The Ricardian model

7. The logic of service outsourcing - The Ricardian model

Aa Aa

It is sometimes argued in editorials or TV commentaries that the modern wave of outsourcing, especially outsourcing of services to Pakistan, defies the logic of the Ricardian model. Let's see if this is actually the case.

The following table presents information on labor productivity in computer component production and call center services in the United States and Pakistan. Assume that United States has an absolute advantage in the production of both services. Fill in the blank cell in the table by choosing the number that would be most plausible and consistent with the reality of outsourcing of services to Pakistan.

	Production per Employee	
	United States	Pakistan
Computer components (Units per hour)	18	4
Call center services (Phone calls per hour)	9	_____

The numbers in the table suggest that the United States has a comparative advantage in _____ , and Pakistan has a comparative advantage in _____ .

Does the observed pattern of outsourcing from the United States to Pakistan, where Pakistan exports _____ , support the logic of the Ricardian model?

- ○ No
- ○ Yes

✧ Grade It Now

8. Comparative advantage and import competition

Aa Aa 🖳

The Czech Republic recently joined the European Union and faces intense import competition from other EU members, such as France. Suppose you have the following data on labor productivity for paper and corn production in the Czech Republic and France. Assume that paper and corn production are measured in constant dollars reflecting the value of the products. Use the Ricardian model to analyze possible effects on each country's paper and corn industries.

	Sales per Employee ($ per year)	
	The Czech Republic	France
Paper	18,000	22,500
Corn	45,000	112,500

The data suggest that France has an absolute advantage over the Czech Republic in _____ and a comparative advantage in _____ .

The data suggest that wages in the Czech Republic are _____ in France.

As a result of the Czech Republic's joining the EU, employment in the Czech Republic is likely to fall in

_____ .

Over time, the degree of openness of Czech economy will influence _____ , and will have a _____ impact on _____ .

❖ Grade It Now

ECON 345–801   **Dr. Stephanie M. Jozefowicz**

Writing Assignment #1: Adam Smith
Due date: 11:59 pm, Friday, February 8 via Aplia Submission

Access the following reading posted within Aplia: An excerpt from Adam Smith's *An Inquiry into the Nature and Causes of the Wealth of Nations*. Read this excerpt one or more times. The excerpt may seem short, but bear in mind that it was originally published in 1776. Accents aside, if you were to go back to Scotland in 1776, you would find people speak and write very differently than we do today. Hence, don't be surprised if you need to re-read the excerpt multiple times.

Write a 1-2 page paper (typed, double-spaced, Times New Roman or Arial 11-point font) in which you summarize Adam Smith's arguments in your own words and include more up-to-date illustrations of his main points. In other words, Adam Smith wrote about things that he personally observed such as wool being produced in Scotland and traded for wine that had been produced in France and tailors exchanging clothing products for shoes made by the shoemaker. Likely, you haven't made a recent trip to the village tailor or the shoemaker. Nevertheless, you encounter imported products and purchase goods and services from people who have specialized jobs on a daily basis. Hence, in your paper, provide a modern example of a trade relationship that would illustrate Adam Smith's main ideas and make more sense to an IUP freshman.

Paper Grading Rubric–50 points as follows:

Title (other than "Adam Smith"):	1 points	Consistent Verb Tense:	2 points
Spelling:	2 points	Transitions/Flow:	2 points
Capitalization:	2 points	Clarity:	2 points
Punctuation marks:	2 points	Conciseness:	2 points
No run-on sentences:	2 points	Organization:	2 points
Complete sentences:	2 points	Introduction:	2 points
No awkward sentences:	2 points	Conclusion:	2 points
Not starting sentences with "but," "and," "or," "because," or "so":	2 points	Formatting:	1 points
Not ending sentences with a preposition:	2 points	Handing in 2 copies:	1 points
Not using 2nd person voice:	2 points	Content:	15 points

Chapter 2, Part 1-Foundations of Modern Trade Theory: Comparative Advantage (Objective 1)

Lecture Presentation PowerPoint slides (Note: there are 17 pages of these, even at 6 slides per page. I have included pages 1-5 and 12-17 in this document. I am happy to provide the full version of the PowerPoint for further review as necessary. Additionally, I have *intentionally* set up this Lecture Presentation file to not print well (graphics fly in and out in slideshow mode but are all laid on top of each other when printed), because I don't want students printing these slides. Rather, students are asked to print the corresponding Lecture Notes Packet file and then launch the Lecture Presentation PowerPoint file in slideshow mode to click through step-by-step and to take notes using the Notes Packet as if they were sitting in a face-to-face lecture.

9/11/2013

CHAPTER 2, Part 1
Foundations of Modern Trade Theory: Comparative Advantage

ECON 345
International Trade
Dr. Stephanie M. Jozefowicz

Historical Development of Modern Trade Theory

The Mercantilists

- 1500-1800 (A.D.)
- group of European writers
- argued that in order to maintain economic growth, a country should maintain a favorable trade balance (i.e., a trade surplus)

Historical Development of Modern Trade Theory

The Mercantilists

- era of exploration and colonization by Europeans, partly to secure new resources that would be shipped back to the home country for consumption and for further processing...
  - e.g., consider English colonization:
  - sugar from Caribbean
  - tea from India
  - tobacco/cotton from America

Historical Development of Modern Trade Theory

The Mercantilists

- problem: eventually run out of new lands to colonize...
- eventual growing criticism of mercantilist views
- David Hume, Adam Smith, David Ricardo, John Stuart Mill, and other philosopher/economist/political scientists of late 1700s and early 1800s begin theoretically exploring international trade topics

---

Historical Development of Modern Trade Theory

Price-specie-flow doctrine

- David Hume
- ≈1754
- specie: money in coin
- Imagine: at the end of a given class period, a helicopter is flying above the door where you exit your building...
- Money is being dropped from the sky—free for the taking, no strings attached

---

Historical Development of Modern Trade Theory

Price-specie-flow doctrine

- You are able to pick up $500...what will you do with it?
- Presumably you will spend some, and perhaps you will save some....
- You weren't the only one picking up money—lots and lots of it was available—simultaneously there were helicopters at IUP, Pitt, CMU, Penn State, and other colleges around the Commonwealth of Pa
- Hence, lots of spending takes place!

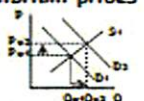## Historical Development of Modern Trade Theory

Price-specie-flow doctrine

- Now, from a microeconomics perspective, what happens to demand for various goods and services?
  - (demand increases!)
- Hence, what happens to equilibrium prices in each of these markets?
  - (P. increases!)

Historical Development of Modern Trade Theory

Price-specie-flow doctrine

- Now, from a macroeconomics perspective, what happens as equilibrium prices in lots of individual markets rise?
  - (it's called inflation!)
- Hence, *ceteris paribus*, this means that domestic goods seem more expensive relative to foreign-made goods both at home and abroad. As a result, what happens to domestic imports? To exports?
  - (domestic imports rise! exports fall!)

Historical Development of Modern Trade Theory

Price-specie-flow doctrine

- Returning to the mercantilist argument that a positive trade balance (i.e., a trade surplus) should be maintained:

  trade balance = exports - imports

- Hence, if exports fall at the same time that imports rise, what happens to a positive trade balance?
  - (the trade surplus shrinks and eventually may be eliminated)

Historical Development of Modern Trade Theory

Price-specie-flow doctrine

- Now, connecting the helicopter:
  - For all domestic exports, money is received *by the* domestic *seller*, which means there is an *inflow* of money *into* the domestic economy
  - For all domestic imports, money is paid *by the* domestic *consumer*, which means there is an *outflow* of money *from* the domestic economy
  - Thus, when there is a positive trade balance, there is an overall net *inflow* of money into the domestic economy (i.e., like a helicopter dropping money from the sky)

Historical Development of Modern Trade Theory

Price-specie-flow doctrine

- Final punchline:
  - A positive trade balance cannot be maintained forever, since a trade surplus leads to...
    - More spending...
    - Increased demand in various markets...
    - Increased prices in various markets...
    - Overall inflation...
    - A rise in imports...
    - A fall in exports...
    - Eventual elimination of the trade surplus

Historical Development of Modern Trade Theory

Absolute advantage
- Adam Smith
- *The Wealth of Nations*
- 1776
- Real-world observations from life in Scotland:
  - Sheep raised in Scotland for wool production
  - Grapes grown in France for wine production
  - International trade of wool for wine

Historical Development of Modern Trade Theory

Absolute advantage

- Why sheep in Scotland?
- Why wine in France?
- Get more wool from same number of sheep in Scotland compared to France, since cooler temperature in Scotland means sheep grow thicker wool coats there...
- Get more wine from same acreage of grapes in France, since warmer temps mean bigger grapes...

Historical Development of Modern Trade Theory

Absolute advantage

- Read the Adam Smith/*Wealth of Nations* excerpt that is posted
- Complete the Adam Smith assignment that is posted

Historical Development of Modern Trade Theory

Comparative advantage
- David Ricardo
- 1817
- *The Principles of Political Economy and Taxation*
- Unsatisfied with Smith's theory, since didn't explain why trade happens when one trading partner has the absolute advantage in all tasks (or why a large nation with more resources would trade with a small nation)

Historical Development of Modern Trade Theory

Comparative advantage
- Consider the following story:
  - A new (just graduated) lawyer returns to her home town to open her own private law practice
  - She hires a secretary, selecting an individual who has the best overall skills among the applicant pool

Historical Development of Modern Trade Theory

Comparative advantage
- The lawyer can actually type more words-per-minute than can the secretary
- Does this mean the lawyer, who has an absolute advantage in both typing and "lawyer" tasks, should spend her time doing basic typing?
- No! The lawyer should focus on (i.e., specialize in) "lawyer" tasks and leave basic typing to her secretary...

Production Possibilities Frontiers and Real-world Trade-offs

Possibilities

Tomatoes (T)

and

small scale farmers fruit/vegetable garden

What will you plant? *Garden*

Production Possibilities Frontiers and Real-world Trade-offs

How might you divide your garden space?

Say, you like both carrots & tomatoes...
then plant ...
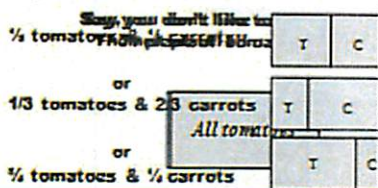
Say, you don't like to ~~from the garden space~~

½ tomatoes ~~& ½ carrots~~

T	C

or

1/3 tomatoes & 2/3 carrots

T	C

All tomatoes

or

¼ tomatoes & ¾ carrots

T	C

Production Possibilities Frontiers and Real-world Trade-offs

Now, let's suppose we know the following:

Scenario 1...

If plant all Tomatoes, then the yield will be 20 lbs.

and

If plant all Carrots, then the yield will be 12 lbs.

Production Possibilities Frontiers and Real-world Trade-offs

So in each case, how much will the yield be?

If plant ½ tomatoes & ½ carrots,
Then ½*20 = 10 lbs. T & ½*12 = 6 lbs. C

or

If plant 1/3 tomatoes & 2/3 carrots,
Then 1/3*20 = 6.7 lbs. T & 2/3*12 = 8 lbs. C

or

If plant ¾ tomatoes & ¼ carrots,
Then ¾*20 = 15 lbs. T & ¼*12 = 3 lbs. C

Production Possibilities Frontiers and Real-world Trade-offs

PPF: Production possibilities frontier
(PPC: Production possibilities curve

A curve showing all the attainable combinations of two products that may be produced with available resources and technology.

What is the max. # lbs. of T that can be harvested?

What is the max. # lbs. of C that can be harvested?
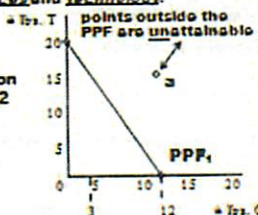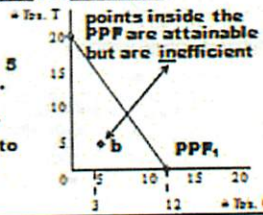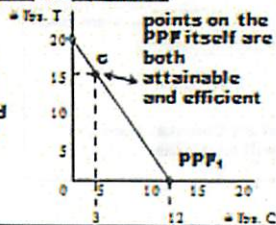
PPF₁ (PPC₁)

Production Possibilities Frontiers and Real-world Trade-offs

PPF: A curve showing all the attainable combinations of two products that may be produced with available resources and technology.

attainable

points outside the PPF are unattainable

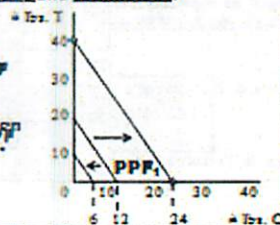a) Is a combination of 15 lbs. T and 12 lbs. C harvested simultaneously possible?

PPF₁

Production Possibilities Frontiers and Real-world Trade-offs

PPF: A curve showing all the attainable combinations of two products that may be produced with available resources and technology.

attainable

points inside the PPF are attainable but are inefficient

b) Now, is a combination of 5 lbs. ... is ... having to give up producing any of the other good
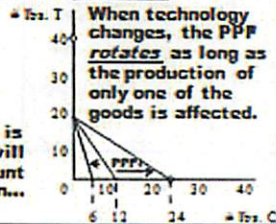
PPF₁

Production Possibilities Frontiers and Real-world Trade-offs

PPF: A curve showing all the _attainable_ combinations of two products that may be produced with available _resources_ and _technology_.

attainable

c) Finally, is a combination of 15 lbs. T and 3 lbs. C harvested simultaneously possible?

points on the PPF itself are both attainable and efficient

Tot. T
20 — c
15
10
5
0 — 5 — 10 — 15 — 20
PPF₁
3 — 12 — *Tot. C*

Production Possibilities Frontiers and Real-world Trade-offs

PPF: A curve showing all the _attainable_ combinations of two products that may be produced with available _resources_ and _technology_.

resources

When resources increase, the PPF _shifts_ right. Suppose the...
(When resources decrease, the PPF _shifts_ left.)

Tot. T
40
30
20
10
0 — 10 — 20 — 30 — 40
PPF₁
6 — 12 — 24 — *Tot. C*

Production Possibilities Frontiers and Real-world Trade-offs

PPF: A curve showing all the _attainable_ combinations of two products that may be produced with available _resources_ and _technology_.

technology

Scenario 3...

Suppose a new Miracle Gro for Carrots product is introduced...it will double the amount of carrots grown...

When technology changes, the PPF _rotates_ as long as the production of only one of the goods is affected.

Tot. T
40
30
20
10
0 — 10 — 20 — 30 — 40
PPF
6 — 12 — 24 — *Tot. C*

Production Possibilities Frontiers and Real-world Trade-offs

Recall...

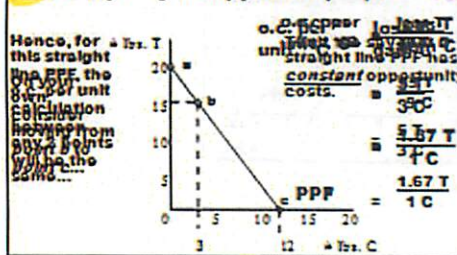opportunity cost: the _next best_ alternative given up when choosing a particular activity

opportunity cost per unit: calculation showing trade-offs between what is lost and what is gained as move along a PPF

o.c. per unit will always be calculated as

$$\frac{loss}{gain}$$

Production Possibilities Frontiers and Real-world Trade-offs

Hence, for this straight line PPF, the o.c. per unit calculation moving from any 2 points will be the same...

o.c. per pepper (T for C) unit straight line PPF has _constant_ opportunity costs.

loss TT gain C

Tot. T
20 — a
15 — b
10
5
0 — 5 — 10 — 15 — 20
PPF — c
3 — 12 — *Tot. C*

$= \frac{5T}{3C}$

$= \frac{5.67\ T}{3\ C}$

$= \frac{1.67\ T}{1\ C}$

Production Possibilities Frontiers and Real-world Trade-offs

Now, consider 2 different products:

apples and oranges...

Which state in the U.S. is known for growing apples?

Which state in the U.S. is known for growing oranges?

Trade

- Extending beyond ECON 122 type coverage

New Language for the Same Ideas...

PPF: also can be referred to as a production possibilities schedule or a transformation schedule

Transformation schedule: as move along the PPF, considering "transforming" production of one good into production of the other good

o.c. per unit calculation: marginal rate of transformation (MRT)

MRT: shows the amount of one product a nation must sacrifice to get one additional unit of the other product

---

Trade

- Extending beyond ECON 122 type coverage

New Language and Concepts...

autarky: the absence of trade

i.e., working in isolation from other people and/or countries...a closed economy

---

Trade

- Extending beyond ECON 122 type coverage

New Language and Concepts...

Trading possibilities line (tt): If start with good for which a given person/country has the comparative advantage, what would be expected if you traded every single unit you produce for the other item based on your agreed upon terms of trade?

Going back to Jim and Steph...
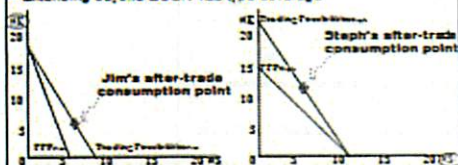

Trade

- Extending beyond ECON 122 type coverage

$$P_E = \frac{1\,S}{2\,E} = \frac{0.5\,S}{1.0\,E} \quad \text{and} \quad P_S = \frac{2\,E}{1\,S}$$

	Jim		Steph	
	E	S	E	S
Produce	+18	0	0	+12
Trade	-12	+6	+12	-6
Consume	+6	+6	+12	+6

Convert Jim's 18 E into the equivalent number of sides based on the terms of trade...

$$18\,E \cdot \frac{1\,S}{2\,E} = 9\,S$$

Also, convert Steph's 12 S into the equivalent number of entrees based on the terms of trade...

$$12\,S \cdot \frac{2\,E}{1\,S} = 24\,E$$

Trade

- Extending beyond ECON 122 type coverage

Now, add the trading possibilities lines (tt) for each person to their respective graph...

Hence, for both Jim and Steph, the trading possibilities lines go through their respective after-trade consumption point.

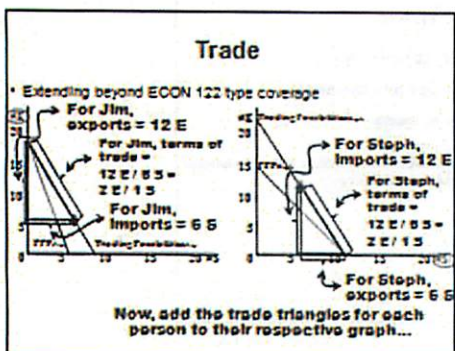
Trade

- Extending beyond ECON 122 type coverage

New Language and Concepts...

Trade triangle: a triangle showing a given country's

1) exports
2) imports
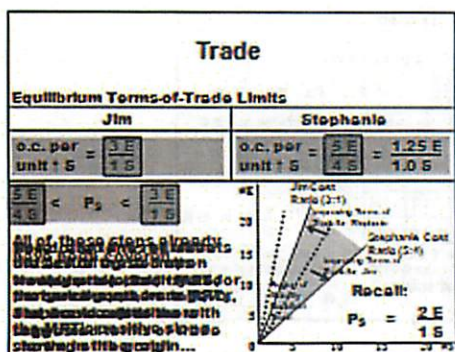3) terms of trade

Going back to Jim and Steph...

Trade

- Extending beyond ECON 122 type coverage

For Jim, exports = 12 E

For Jim, terms of trade =
12 E / 6 S =
2 E / 1 S

For Jim, imports = 6 S

For Steph, imports = 12 E

For Steph, terms of trade =
12 E / 6 S =
2 E / 1 S

For Steph, exports = 6 S

Now, add the trade triangles for each person to their respective graph...

Trade

- Extending beyond ECON 122 type coverage

New Language and Concepts....

Terms-of-Trade Limits: the region of mutually beneficial trade is bounded by the cost ratios of the two countries

To determine the outer limits within which the equilibrium terms of trade must fall, we're going to return to the MRT calculations

Going back to Jim and Steph....

Trade

Equilibrium Terms-of-Trade Limits

Jim	Stephanie
o.c. per unit : S = $\dfrac{3\,E}{1\,S}$	o.c. per unit : S = $\dfrac{5\,E}{4\,S}$ = $\dfrac{1.25\,E}{1.0\,S}$

$$\frac{5\,E}{4\,S} < P_s < \frac{3\,E}{1\,S}$$

All of these steps already... [text obscured]

Recall:

$$P_s = \frac{2\,E}{1\,S}$$

Trade

- Practice Problem Solving

Complete the following Ricardian Model questions #1-9. Assume **constant** opportunity cost.

Delta: can produce at most 400,000 pounds of lemons OR at most 300,000 pounds of oranges

Gamma: can produce at most 200,000 pounds of lemons or at most 600,000 pounds of oranges

1. Find the MRT$_{lemons}$ for both countries.
2. Find the MRT$_{oranges}$ for both countries.
3. Determine which nation has the comparative advantage in the production of lemons and which nation has the comparative advantage in the production of oranges. Briefly explain.
4. Determine the boundaries on the terms of trade.

Trade

- Practice Problem Solving

1. Find the MRT$_{lemons}$ for both countries.

Delta: can produce at most 400,000 pounds of lemons OR at most 300,000 pounds of oranges

MRT$_L$ = loss Or/gain L = 300,000 Or/400,000 L = 3 Or/4 L

Gamma: can produce at most 200,000 pounds of lemons or at most 600,000 pounds of oranges

MRT$_L$ = loss Or/gain L = 600,000 Or/200,000 L = 3 Or/1 L

Trade

- Practice Problem Solving

2. Find the MRT$_{oranges}$ for both countries.

Delta: can produce at most 400,000 pounds of lemons OR at most 300,000 pounds of oranges

MRT$_O$ = loss L/gain Or = 400,000 L/300,000 Or = 4 L/3 Or

Gamma: can produce at most 200,000 pounds of lemons or at most 600,000 pounds of oranges

MRT$_O$ = loss L/gain Or = 200,000 L/600,000 Or = 1 L/3 Or

13

Trade

- Practice Problem 8oMng

3. Determine which nation has the comparative advantage in the production of lemons and which nation has the comparative advantage in the production of oranges. Briefly explain.

Delta:
   MRT$_O$ = loss L/gain Or = 400,000 L/300,000 Or = 4 L/3 Or

Gamma:
   MRT$_O$ = loss L/gain Or = 200,000 L/600,000 Or = 1 L/3 Or

   For Delta MRT$_L$ = 3 Or/4 L < 3 Or/1 L = MRT$_L$ for Gamma.
   Hence, Delta has the comparative advantage in Lemons.

   For Gamma MRT$_O$ = 1 L/3 Or < 4 L/3 Or = MRT$_O$ for Delta.
   Hence, Gamma has the comparative advantage in Oranges.

Trade

- Practice Problem 8oMng

4. Determine the boundaries on the terms of trade.

Delta:
   MRT$_O$ = loss L/gain Or = 400,000 L/300,000 Or = 4 L/3 Or

Gamma:
   MRT$_O$ = loss L/gain Or = 200,000 L/600,000 Or = 1 L/3 Or

   1 L/3 Or < P$_O$ < 4 L/3 Or

   and

   3 Or/4 L < P$_L$ < 3 Or/1 L

Trade

- Practice Problem 8oMng

Complete the following Ricardian Model questions #1-9. Assume constant opportunity cost.

Now, suppose the price of lemons is 2.5 pounds of oranges per 1 pound of lemons. Further, suppose that Delta offers to trade 100,000 pounds of lemons.

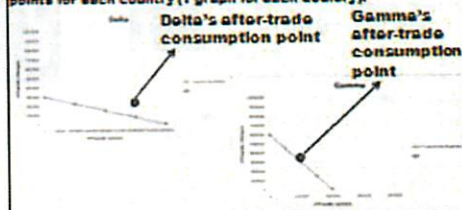5. How many pounds of oranges will be expected in return for 100,000 pounds of lemons?
6. Show the after-trade consumption table for both countries.
7. Explicitly show gains from trade for both countries by plotting the original PPFs and the after-trade consumption points for each country (1 graph for each country).
8. Depict the trade triangles for each country in your graphs....be sure to include the Trading Possibilities line.

Trade

- Practice Problem 8oMng

5. How many pounds of oranges will be expected in return for 100,000 pounds of lemons?

(Now, suppose the price of lemons is 2.5 pounds of oranges per 1 pound of lemons. Further, suppose that Delta offers to trade 100,000 pounds of lemons.)

$$100,000 \; L \cdot \frac{2.5 \; Or}{1 \; L} = 250,000 \; Or$$

Trade

- Practice Problem 8oMng

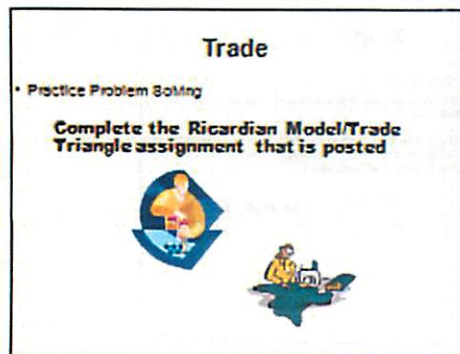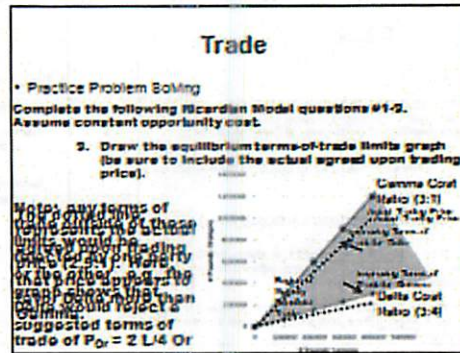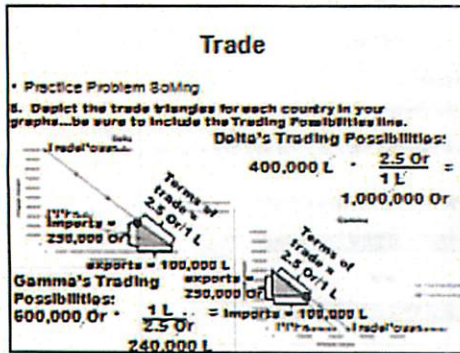6. Show the after-trade consumption table for both countries.

	Delta		Gamma	
	L	Or	L	Or
Produce	400,000	0	0	600,000
Trade	-100,000	+250,000	+100,000	-250,000
Consume	+300,000	+250,000	+100,000	+350,000

Trade

- Practice Problem 8oMng

7. Explicitly show gains from trade for both countries by plotting the original PPFs and the after-trade consumption points for each country (1 graph for each country).

Delta's after-trade consumption point

Gamma's after-trade consumption point

Slide 1

Trade

- Practice Problem 8oMng

8. Depict the trade triangles for each country in your graphs...be sure to include the Trading Possibilities line.

Delta's Trading Possibilities:

$$400,000 \text{ L} \cdot \frac{2.5 \text{ Or}}{1 \text{ L}} = 1,000,000 \text{ Or}$$

Terms of Trade = 2.5 Or/1 L

Imports = 250,000 Or

exports = 100,000 L

Gamma's Trading Possibilities:

Terms of Trade = 2.5 Or/1 L

exports = 250,000 Or

$$600,000 \text{ Or} \cdot \frac{1 \text{ L}}{2.5 \text{ Or}} = \text{Imports} = 100,000 \text{ L}$$

240,000 L

Slide 2

Trade

- Practice Problem 8oMng

Complete the following Ricardian Model questions #1-9. Assume constant opportunity cost.

9. Draw the equilibrium terms-of-trade limits graph (be sure to include the actual agreed upon trading price).

Note: any terms of trade within either of these limits would be a preferred trade to either Delta or Gamma. This graph shows that neither would reject a suggested terms of trade of $P_{Or} = 2 \text{ L}/4 \text{ Or}$

Gamma Cost Ratio (3:3)

Delta Cost Ratio (3:4)

Slide 3

Trade

- Practice Problem 8oMng

Complete the Ricardian Model/Trade Triangle assignment that is posted

Slide 4

Historical Development of Modern Trade Theory

Back to David Ricardo

- In his actual model, Ricardo makes 11 key assumptions...

  1) The world consists of two nations, each using a single input to produce two commodities

  e.g.,

  tobacco and tea

Slide 5

Historical Development of Modern Trade Theory

Back to David Ricardo

- In his actual model, Ricardo makes 11 key assumptions...

  2) In each nation, labor is the only input (the labor theory of value from Adam Smith's model)...each nation has a fixed endowment of labor, and labor is fully employed and homogeneous (i.e., identically skilled workers)

Slide 6

Historical Development of Modern Trade Theory

Ricardian Model Assumptions

  3) Labor can move freely among industries within a nation but is incapable of moving between nations (i.e., no immigration allowed)

  4) The level of technology is fixed for both nations...different nations may use different technologies, but all firms within the same nation utilize a common production method for each commodity

Historical Development of Modern Trade Theory

Ricardian Model Assumptions

5) Costs do not vary with the level of production and are proportional to the amount of labor used (say, pay each worker $1..then if hire 0 workers, pay $0 total for labor costs; if hire 1 worker, pay $1 total for labor costs; if hire 2 workers, pay $2 total for labor costs; if hire 3 workers, pay $3 total for labor costs, etc.

Historical Development of Modern Trade Theory

Ricardian Model Assumptions

6) Perfect competition prevails in all markets...because no single producer or consumer is large enough to influence the market, all producers are "price takers"... (Note: in ECON 122 you spent a whole chapter learning these ideas!) product quality does not vary among nations (i.e., identical products)...there is free entry/exit of firms in an industry, and the price of each product equals the product's marginal cost of production

Historical Development of Modern Trade Theory

Ricardian Model Assumptions

7) Free trade occurs between nations; that is, no government barriers to trade exist

8) Transportation costs are zero...consumers will be indifferent between domestically produced and imported versions of a product if the domestic prices of the two products are identical (note: changing this assumption results in just a "parallel shift" of parameters)

Historical Development of Modern Trade Theory

Ricardian Model Assumptions

9) Firms make production decisions in an attempt to maximize profits; consumers maximize satisfaction (utility) through their consumption decisions

10) There is no money illusion; that is, when consumers make their consumption choices and firms make their production decisions, they take into account the behaviors of all prices

Historical Development of Modern Trade Theory

Ricardian Model Assumptions

11) Trade is balanced (exports must pay for imports), thus ruling out flows of money between nations

Historical Development of Modern Trade Theory

Theory of Reciprocal Demand
- John Stuart Mill
- 1848
- *Principles of Political Economy*
- Within the outer limits of the terms of trade, the actual terms of trade are determined by the relative strength of each country's demand for the other country's product

Historical Development of Modern Trade Theory

Theory of Reciprocal Demand

- If 2 nations of approximately the same size and with similar taste patterns participate in international trade, the gains from trade will be shared about equally between them

- If 2 nations of approximately the same size have different taste patterns, then for the country more eager for a product, the terms of trade will be less favorable since with greater demand in this country should expect a higher price

Historical Development of Modern Trade Theory

Theory of Reciprocal Demand

- If one nation is significantly larger than the other, the larger nation attains fewer gains from trade while the smaller nation attains most of the gains from trade

  - in the Terms-of-Trade Limits graph, the actual terms of trade is very close to the large nation's cost-ratio line

  - "importance of being unimportant"

17

Lecture Notes Packet (Note: I am including pages 1-5 and 10-14 of 14 pages to parallel the Lecture Presentation PowerPoint slides included in the previous section.)

CHAPTER 2, Part 1
Foundations of Modern Trade Theory: Comparative Advantage

ECON 345
International Trade
Dr. Stephanie M. Jozefowicz

Historical Development of Modern Trade Theory

The _____
- _____-1800 (A.D.)
- group of _____ writers
- argued that in order to maintain economic _____, a country should maintain a _____ trade balance. (i.e., a _____ _____)
- era of _____ and _____ by Europeans, partly to secure new _____ that would be shipped back to the _____ country for consumption and for further _____
  - e.g., consider English colonization:
    - _____ from Caribbean
    - _____ from India
    - _____ from North America

Historical Development of Modern Trade Theory

The Mercantilists
- problem: eventually _____ _____ of new lands to colonize...

- eventual growing _____ of mercantilist views

- David _____, Adam _____, David _____, John Stuart _____, and other philosopher/economist/political scientists of late 1700s and early 1800s begin theoretically exploring _____ _____ topics

---

Historical Development of Modern Trade Theory

_____ doctrine

- _____
- =1754
- specie: _____ in coin

  - Imagine: at the end of a given class period, a helicopter is flying above the door where you exit your building...

- _____ is being dropped from the sky—free for the taking, no strings attached
- You are able to _____ _____ $500.... what will you _____ with it?
- Presumably you will _____ some, and perhaps you will _____ some...

Historical Development of Modern Trade Theory

Price-specie-flow doctrine
- You weren't the only one picking up money—lots and lots of it was available—simultaneously there were helicopters at IUP, Pitt, CMU, Penn State, and other colleges around the Commonwealth of Pa
- Hence, lots of _____ takes place!

- Now, from a _____ perspective, what happens to _____ for various goods and services?

- Hence, what happens to equilibrium _____ in each of these markets?

Historical Development of Modern Trade Theory

Price-specie-flow doctrine
- Now, from a _____ perspective, what happens as equilibrium prices in _____ of individual markets rise?

- Hence, *ceteris paribus*, this means that _____ goods seem more _____ relative to foreign-made goods both at _____ and _____. As a result, what happens to domestic imports? To exports?

Historical Development of Modern Trade Theory

Price-specie-flow doctrine
- Returning to the mercantilist argument that a _____ trade balance (i.e., a trade _____) should be maintained:

  trade balance =

- Hence, if exports _____ at the same time that imports _____, what happens to a positive trade balance?
  -

Historical Development of Modern Trade Theory

Price-specie-flow doctrine
- Now, connecting the helicopter:
  - For all domestic _____, money is received _____ the domestic _____, which means there is an _____ of money _____ the domestic economy
  - For all domestic _____, money is paid ___ the domestic _____, which means there is an _____ of money, _____ the domestic economy
  - Thus, when there is a positive trade balance, there is an overall _____ of money _____ the domestic economy (i.e., like a helicopter dropping money from the sky)

Historical Development of Modern Trade Theory

Price-specie-flow doctrine
- Final punchline:
  - A _____ trade balance _____ be maintained forever, since a trade _____ leads to...
    -
    -
    -
    -
    -
    -

Historical Development of Modern Trade Theory

_____ advantage
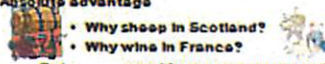-
-
- Real-world observations from life in _____:
  - _____ raised in Scotland for _____ production
  - _____ grown in France for _____ production
  - International trade of _____ for _____

Historical Development of Modern Trade Theory

Absolute advantage
- Why sheep in Scotland?
- Why wine in France?
  - Got _____ wool from same number of sheep in _____ compared to _____ since _____ temperature in Scotland means sheep grow _____ wool coats there...
  - Got _____ wine from same acreage of grapes in _____, since _____ temps mean bigger grapes...
- Read the Adam Smith/*Wealth of Nations* excerpt that is posted.
- Complete the Adam Smith assignment that is posted.

Historical Development of Modern Trade Theory

_____ advantage
-
-
-
- Unsatisfied with Smith's theory, since didn't explain why trade happens when one trading partner has the _____ advantage in _____ tasks (or why a _____ nation with more resources would trade with a _____ nation)

Historical Development of Modern Trade Theory

Comparative advantage
- Consider the following story:
  - A new (just graduated) _____ returns to her home town to open her own private _____ practice
  - She hires a _____, selecting an individual who has the best overall skills among the applicant pool
  - The lawyer can actually type _____ words-per-minute than can the secretary
  - Does this mean the lawyer, who has an absolute advantage in both typing and "lawyer" tasks, should spend her time doing basic _____?

Production Possibilities Frontiers and Real-world Trade-offs

Recall... Scarcity: The situation in which _____ wants _____ the _____ resources available to fulfill those wants.

Consider becoming a small scale "farmer" by planting a backyard fruit/vegetable garden...

What will you plant?   **GARDEN**

For simplicity, let's assume only 2 fruits/vegetables will be planted...

Say,

Production Possibilities Frontiers and Real-world Trade-offs

How might you divide your garden space?

Say you don't like tomatoes...
Then plant _____ ...

Say you don't like carrots...
Then plant _____ ...

Say you like both carrots & tomatoes

T	C
T	C
T	C

Production Possibilities Frontiers and Real-world Trade-offs

Now, let's suppose we know the following:
Scenario 1...

If plant all Tomatoes, then the yield will be _____ and

If plant all Carrots, then the yield will be _____.

So in each case, how much will the yield be?
If plant ¼ tomatoes & ¼ carrots,

Then ¼*20 = _____ T & ¼*12 = _____ C
or
If plant 1/3 tomatoes & 2/3 carrots,

Then 1/3*20 = _____ T & 2/3*12 = _____ C
or
If plant ¾ tomatoes & ¼ carrots,

Then ¾*20 = _____ T & ¼*12 = _____ C

Production Possibilities Frontiers and Real-world Trade-offs

Graphing...

What is the _____ # lbs. of T that can be harvested?

What is the _____ # lbs. of C that can be harvested?
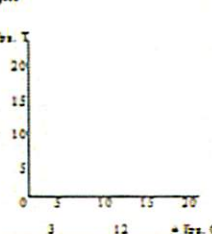
(graph with y-axis lbs. T marked 20, 15, 10, 5 and x-axis lbs. C marked 5, 10, 15, 20 / 3, 12)

Production Possibilities Frontiers and Real-world Trade-offs

PPF: Production possibilities _____
(PPC: Production possibilities _____)

A curve showing all the _____ combinations of _____ products that may be produced with _____ _____ and _____.

Production Possibilities Frontiers and Real-world Trade-offs

attainable

a) Is a combination of 15 lbs. T and 12 lbs. C harvested simultaneously possible?

points _____ th PPF are
_____
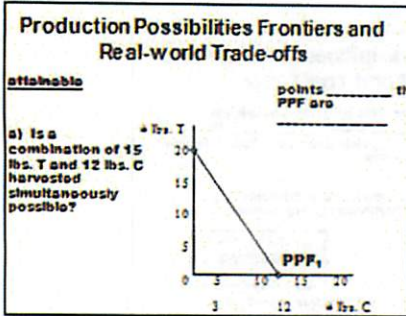
Production Possibilities Frontiers and Real-world Trade-offs

Recall:

productive efficiency: the only way to make _____ of one good is to produce _____ of another

Thus,

_____: It is possible to make more of one good _____ having to give up producing any of the other good

Production Possibilities Frontiers and Real-world Trade-offs

attainable

b) Now, is a combination of 5 lbs. T and 5 lbs. C harvested simultaneously possible?

points _____ the PPF are _____ but are _____

e.g., we could get _____ C _____ giving up any T

Production Possibilities Frontiers and Real-world Trade-offs

attainable

c) Finally, is a combination of 15 lbs. T and 3 lbs. C harvested simultaneously possible?

points _____ the PPF itself are both _____ and _____

e.g., we can get _____ C _____ by giving up some T

Production Possibilities Frontiers and Real-world Trade-offs

resources

Scenario 2: Suppose the amount of garden space doubles...

When resources _____, the PPF _____.

(When resources _____, the PPF _____.)

Production Possibilities Frontiers and Real-world Trade-offs

technology

Scenario 3: Suppose a new Miracle Gro for Carrots product is introduced...It will double the amount of carrots grown...

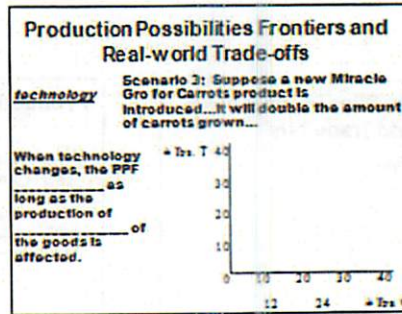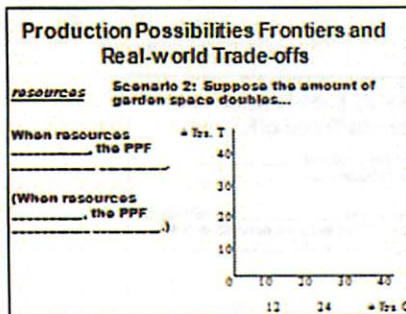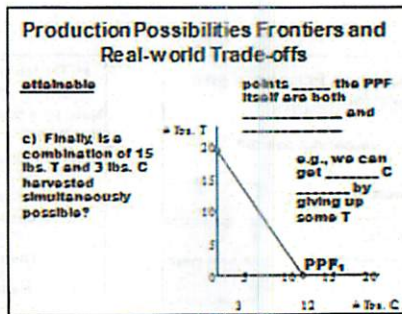When technology changes, the PPF _____ as long as the production of _____ of the goods is affected.

Production Possibilities Frontiers and Real-world Trade-offs

Recall... opportunity cost: the _____ _____ alternative _____ _____ when choosing a particular activity

_____;
calculation showing _____ between what is _____ and what is _____ as _____ _____ a PPF

o.c. per unit will always be calculated as _____

Production Possibilities Frontiers and Real-world Trade-offs

Consider moving from *point a* to *point b*...

o.c. per unit ↑ C =

Production Possibilities Frontiers and Real-world Trade-offs

Consider moving from *point b* to *point c*...

Hence, for this _____ PPF, the o.c. per unit calculation between any 2 points will be the _____.

Thus, we say that a _____ _____ PPF has _____ opportunity costs.

o.c. per unit ↑ C =

Production Possibilities Frontiers and Real-world Trade-offs

Now, consider 2 different products:

apples and oranges...

Which state in the U.S. is known for growing apples?

Which state in the U.S. is known for growing oranges?

Production Possibilities Frontiers and Real-world Trade-offs

Consider moving from....*point a* to *point b*...
point b to *point c*...
point c to *point d*...
point d to *point e*...

Production Possibilities Frontiers and Real-world Trade-offs

point a to *point b*...
o.c. per unit ↑ O =
point b to *point c*...
o.c. per unit ↑ O =
point c to *point d*...
o.c. per unit ↑ O =
point d to *point e*...
o.c. per unit ↑ O =

Trade

A doctor's office employs two nurses, Clara and Florence. Clara can check 6 IV's (I) in 30 minutes or check blood pressure (B) of 2 patients in 30 minutes. Florence can check 4 IV's (I) in 30 minutes or check blood (B) of 6 patients in 30 minutes.

Based on the information given above, which of the following answer choices contains the **correct** terms of trade boundaries for Florence and Clara?

A. $\frac{1\,I}{3\,B} < P_I < \frac{3\,I}{2\,B}$

B. $\frac{2\,I}{3\,B} < P_I < \frac{3\,I}{1\,B}$

C. $\frac{1\,I}{3\,B} < P_I < \frac{3\,I}{2\,B}$

D. $\frac{2\,I}{3\,B} < P_I < \frac{3\,I}{1\,B}$

Trade

More Practice

- Assume Country 1 can produce wheat, with a constant opportunity cost of 6 tons of coffee for every 1 ton of wheat it produces.
  - a) What does this imply about the o.c. per unit of ? the production of coffee?
  - b) Show the PPF for this country, assuming the maximum amount of coffee it can produce is 24,000 tons.
- Assume Country 2 can produce wheat, with a constant opportunity cost of 4 tons of coffee for every 1 ton of wheat it produces.
  - c) What does this imply about the o.c. per unit of ? of increasing the production of coffee?
  - d) Show the PPF for this country, assuming the maximum amount of coffee it can produce is 36,000 tons.
- Consider trade between these two countries.
  - e) Considering opportunity costs, which country would be likely to produce wheat?
  - f) Which country would be likely to produce coffee?
  - g) What are the boundaries on the terms of trade price of coffee? (i.e., fill in the blanks: _____ < P_C < _____)

Trade

• Extending beyond ECON 122 type coverage

New Language for the Same Ideas...

PPF: also can be referred to as a production possibilities _____ or a _____ schedule

_____: as move along the PPF, considering "_____" production of one good into _____ of the other good

o.c. per unit calculation: _____ rate of _____ (_____)

MRT: shows the amount of one product a nation must _____ to get one _____ unit of the other product

---

Trade

• Extending beyond ECON 122 type coverage

New Language and Concepts...

_____: the _____ of trade

i.e., working in _____ from other people and/or countries...a _____ economy

_____ (___): if start with good for which a given person/country has the _____ advantage, what would be _____ if you traded _____ single unit you produce for the other item based on your agreed upon terms of trade?

Going back to Jim and Steph...

Trade

• Extending beyond ECON 122 type coverage

$$P_C = \frac{1\,S}{2\,E} = \frac{0.5\,S}{1.0\,E} \quad \text{and} \quad P_S = \frac{2\,E}{1\,S}$$

	Jim		Steph	
	E	S	E	S
Produce	+18	0	0	+12
Trade	-12	+6	+12	-6
Consume	+6	+6	+12	+6

Convert Jim's 18 E into the equivalent number of sides based on the terms of trade...

Also, convert Steph's 12 S into the equivalent number of entrees based on the terms of trade...

Trade

• Extending beyond ECON 122 type coverage

Now, add the trading possibilities lines (tt) for each person to their respective graph...

Hence, for both Jim and Steph, the trading possibilities lines go _____ their respective after-trade consumption point.

Slide 1

Trade

- Extending beyond ECON 122 type coverage

New Language and Concepts...

Trade _____: a triangle showing a given country's

1)
2)
3)

Going back to Jim and Steph...

Slide 2

Trade

- Extending beyond ECON 122 type coverage

Now, add the trade triangles for each person to their respective graph...

Slide 3

Trade

- Extending beyond ECON 122 type coverage

New Language and Concepts...

_____: the region of
_____ beneficial trade is _____ by
the _____ _____ of the two countries

To determine the _____ limits within which
the equilibrium terms of trade _____ fall,
we're going to return to the _____
calculations

Going back to Jim and Steph...

Slide 4

Trade

Equilibrium Terms-of-Trade Limits

Jim		Stephanie	
o.c. per unit ↑ S $= \dfrac{3\,E}{1\,S}$		o.c. per unit ↑ S $= \dfrac{5\,E}{4\,S}$ $= \dfrac{1.25\,E}{1.0\,S}$	

$$\frac{5\,E}{4\,S} < P_2 < \frac{3\,E}{1\,S}$$

All of these steps already have been covered...

Now, we take each _____ for the same good, here _____, and draw a new line with the MRT's _____ slope, starting at the _____...

Slide 5

Trade

- Practice Problem Solving

Complete the following Ricardian Model questions #1-2.
Assume **constant** opportunity cost.

Delta: can produce at most 400,000 pounds of lemons OR at most 300,000 pounds of oranges
Gamma: can produce at most 200,000 pounds of lemons or at most 800,000 pounds of oranges

1. Find the MRT___ for both countries.
2. Find the MRT___ for both countries.
3. Determine which nation has the comparative advantage in the production of lemons and which nation has the comparative advantage in the production of oranges. Briefly explain.
4. Determine the boundaries on the terms of trade.

Slide 6

Trade

- Practice Problem Solving

1. Find the MRT___ for both countries.

   Delta: can produce at most 400,000 pounds of lemons OR at most 300,000 pounds of oranges

   MRTL =

   Gamma: can produce at most 200,000 pounds of lemons or at most 800,000 pounds of oranges

   MRTL =

2. Find the MRT___ for both countries.

   MRTo =

   MRTo =

Trade

* Practice Problem SoMng

3. Determine which nation has the comparative advantage in the production of lemons and which nation has the comparative advantage in the production of oranges. Briefly explain.

Delta:
   MRT> =

Gamma:
   MRT> =

   Hence, _____ has the comparative advantage in Lemons.

   Hence, _____ has the comparative advantage in Oranges.

Trade

* Practice Problem SoMng

4. Determine the boundaries on the terms of trade.

Delta:
   MRT> =

Gamma:
   MRT> =

   and

Trade

* Practice Problem SoMng

Complete the following Ricardian Model questions #1-9. Assume constant opportunity cost.

Now, suppose the price of lemons is 2.5 pounds of oranges per 1 pound of lemons. Further, suppose that Delta offers to trade 100,000 pounds of lemons.

5. How many pounds of oranges will be expected in return for 100,000 pounds of lemons?

6. Show the after-trade consumption table for both countries.

7. Explicitly show gains from trade for both countries by plotting the original PPFs and the after-trade consumption points for each country (1 graph for each country).

8. Depict the trade triangles for each country in your graphs....be sure to include the Trading Possibilities line.

9. Draw the equilibrium terms-of-trade limits graph (be sure to include the actual agreed upon trading price).

Trade

* Practice Problem SoMng

5. How many pounds of oranges will be expected in return for 100,000 pounds of lemons?

(Now, suppose the price of lemons is 2.5 pounds of oranges per 1 pound of lemons. Further, suppose that Delta offers to trade 100,000 pounds of lemons.)

Trade

* Practice Problem SoMng

6. Show the after-trade consumption table for both countries.

Trade

* Practice Problem SoMng

Trade

- Practice Problem Solving

Complete the following Ricardian Model questions #1-5. Assume constant opportunity cost.

     5. Draw the equilibrium terms-of-trade limits graph (be sure to include the actual agreed upon trading price).

Complete the Ricardian Model/Trade Triangle assignment that is posted

---

Historical Development of Modern Trade Theory

Back to David Ricardo

- In his actual model, Ricardo makes 11 key assumptions...

    1) The world consists of _____ nations, each using a _____ input to produce two _____

    e.g.,

    2) In each nation, _____ is the only input (the _____ theory of _____ from Adam Smith's model)...each nation has a _____ endowment of labor, and labor is fully _____ and _____ (i.e., identically _____ workers)

Historical Development of Modern Trade Theory

Ricardian Model Assumptions

3) Labor can _____ freely among industries _____ a nation but is incapable of moving _____ nations (i.e., no _____ allowed)

4) The level of _____ is fixed for both nations...different _____ may use different technologies, but all firms within the _____ nation utilize a _____ production method for each commodity

5) Costs ____ _____ vary with the level of production and are _____ to the amount of labor used (say, pay each worker $1...then if hire 0 workers, pay ____ total for labor costs; if hire 1 worker, pay ____ total for labor costs; if hire 2 workers, pay ____ total for labor costs; if hire 3 workers, pay ____ total for labor costs, etc.

Historical Development of Modern Trade Theory

Ricardian Model Assumptions

6) _____ prevails in all markets...because _____ single producer or consumer is large enough to influence the market, all producers are "_____"...product _____ does not vary among nations (i.e., _____ products)...there is free _____ of firms in an industry, and the price of each product equals the product's _____ _____ of production

(Note: in ECON 122 you spent a whole chapter learning these ideas!)

Historical Development of Modern Trade Theory

Ricardian Model Assumptions

7) _____ trade occurs between nations; that is, ___ government _____ to trade exist

8) Transportation costs are _____ consumers will be _____ between domestically produced and imported versions of a product if the domestic prices of the two products are identical (note: changing this assumption results in just a "parallel shift" of parameters)

9) Firms make production decisions in an attempt to _____; consumers _____ satisfaction (_____) through their consumption decisions

---

Historical Development of Modern Trade Theory

Ricardian Model Assumptions

10) There is no money _____; that is, when consumers make their consumption choices and firms make their production decisions, they take into account the behaviors of all _____

11) Trade is _____ (_____ must _____ for _____), thus ruling out flows of _____ between nations

---

Historical Development of Modern Trade Theory

Theory of _____ Demand

-
-
-

- Within the _____ limits of the terms of trade, the _____ terms of trade are determined by the relative _____ of each country's _____ for the other country's product

- If 2 nations of approximately the same _____ and with _____ _____ patterns participate in international trade, the gains from trade will be shared about _____ between them

Historical Development of Modern Trade Theory

Theory of Reciprocal Demand

- If 2 nations of approximately the same _____ have _____ _____ patterns, then for the country more _____ for a product, the terms of trade will be _____ favorable since with greater demand in this country should expect a _____ price

- If one nation is significantly _____ than the other, the larger nation attains _____ gains from trade while the smaller nation attains _____ of the gains from trade

  – In the _____ _____ graph, the actual terms of trade is very _____ to the large nation's cost-ratio line

  – "Importance of being _____"