

Geopolitical Modeling (DIP725)

Fall 2012

Version, August 3, 2012

Evan Hillebrand
Patterson Tower 465
859/257-6928
EHill2@uky.edu

Meeting Time: Thursday 4:00-6:30
Meeting Place: Van Room
Offices Hours: WD: 1:00-4:00

This course uses a large, but user-friendly, computer model of the world's political and economic systems to explore a variety of policy questions from a quantitative viewpoint. The emphasis will be on long-range, global issues, with a heavy focus on issues related to economic development and globalization. The course will explore how to frame issues analytically, how assumptions can affect policies, and how policies can affect outcomes. The course will review current quantitative research on key international relations topics such as demographic change, world agriculture, energy, international trade and finance, instability, and war. The course will emphasize the use of the model and quantitative tools in general to produce real-world foreign policy analysis of potential use to policy makers and advisors.

The course is designed to be of particular use to future government analysts but it will also be helpful to those considering careers in policy-oriented non-governmental organizations (NGOs) or global business.

Prerequisites: DIP 725 requires some prior training in economics and statistical methods.

Format: The class will be taught primarily through sessions devoted to learning the use of the International Futures Model (IFs) with extensive discussion of the literature pertinent to the construction of the model and literature framing selected policy debates that the model is competent to address. It would be extremely helpful if each student brought a notebook computer to each class; the model software is free and is available at <http://www.du.edu/~bhughes/ifs.html>. The model does not run on IPADs or Apple products in general. The class will also use the EXCEL spreadsheet program that comes with the Microsoft Office Suite.

The first several weeks of the class will involve guidance on the use of the model and extensive homework practice sessions. The software supporting the model is easy—one does not have to be a programmer to master it. But the model is complicated and if the student falls behind in the early instruction period it will be difficult to gain mastery.

As mastery with the model grows, the class meetings will focus on using the model to address important long-range policy issues of the sort that may come to the attention of a policy analyst working at the national or international level.

Grading: Grading will be based on class participation (15%), homework exercises (50%), a midterm (20%), and an oral presentation (15%). As the grading weights above indicate, the homework is very important. The homework, even more than the tests, will show whether the student understands how to use the model to do policy analysis. The first two homework grades will count less than the others; later homeworks will often involve carefully written policy memos as well as model-based analysis.

Students will be graded on a 100 point scale, 90-100 = A, 80-89.49 = B, 65-79.5 = C, and below 64.4 = E.

Students taking comprehensive exams this semester will be excused from taking the last test if they wish and if they choose to answer a development question on comps which I will grade as a substitute for the final.

Open-Door Policy: If my office door is open (and I'm not on the phone or talking to someone else) I am available for consultation.

Required Textbooks:

International Futures, fourth edition, Barry Hughes and Evan Hillebrand
(Paradigm Publishers, 2006).

Recommended:

Economics of Development, Perkins, Radelet, and Lindauer (Norton, any edition)
Analysis of Economic Data, Gary Koop (Wiley and Sons, 2005)
Left Behind: Latin America and the False Promise of Populism by Sebastian Edwards
Why Nations Fail, by Daron Acemoglu and James Robinson

Required Computer Software: International Futures Model, version 6.32, available for free at:

<http://www.ifs.du.edu/ifs/index.aspx>

Readings: Most of the readings (marked DB below) will be found in a shared **Dropbox** file that has been made available to registered students. Other readings will also be assigned and may be found at the Young Library Website (noted below as either YLE for journal articles or YLebook for books available electronically, or from the listed URL. The readings listed for each class should all be read before class to ensure the class is as meaningful and helpful to all as it should be. (Reading assignments may vary somewhat from the syllabus as the class progresses.) Supplemental readings will be noted in lighter ink and might be discussed in class if time permits or student interest requires. They will be testable only to the extent they have been discussed in class. Each student will be expected to read *The Economist* every week and be prepared to discuss relevant current articles relevant to classroom materials. Lecture slides and other material will be posted to Dropbox

23 Aug, Week 1: Model Set Up and Orientation Session

Come to class with an IBM-type computer. We will install the model software using the wireless internet connection or a CD (It would be helpful if you install the model from the IFs website before the first class). If you don't have the right equipment it will still be possible to take the class and do the work, but it will be harder because you might have to use the computers in the student room or elsewhere. I will give a brief introduction to the model, and help you get started on the first homework assignment. It would be helpful if you have read the first 4 chapters of Hughes *prior to the first class*.

Homework assignment #1 will be before the start of the next class.

Read Hughes ch 1-4 before Class 2 if you haven't already done this.

30 Aug, Week 2: Population Modeling

In-class exercise —EXCEL Population Model

Hughes: ch 5

Perkins, *Economics of Development*, ch 7, pp 237-273, "Population" (DB)

Paul Ehrlich—ch 1, from *The Population Explosion* (Simon and Schuster, 1990). (DB)

Browse: www.prb.org (Population Reference Bureau)

www.un.org/esa/population/unpop.htm

Homework assignment #2 will be before the start of the next class.

6 Sep, Week 3: Economic Modeling

In-class exercise —EXCEL Economic Growth Model

Hughes, ch 6

Perkins, *Economics of Development*, ch 4, (pp 103-147) "Theories of Economic Growth", (DB)

Acemoglu and Robinson, Chapter 2 from *Why Nations Fail* (DB)

Homework assignment #3 will be due before the start of the next class.

13 Sep, Week 4: Agriculture

Hughes: ch 7
Perkins, ch. 16 (pp 607-650) (DB)
Lester Brown, ch 7, (Feeding Everyone Well), from *The Eco-Economy*. (DB)
Paul Collier, "African Agriculture in 50 Years" (DB)
Browse: <http://www.fao.org/>
Homework assignment #4 will be before the start of the next class.

20 Sep, Week 5: Energy

Hughes, ch 8
Kenneth Deffeyes, Ch. 7 in *Hubbert's Peak* (DB)
Robin Mills, Ch 4 in *The Myth of the Oil Crisis* (DB) (read pp 34-50 and 100-105, skim the rest)
Supplemental: Julian Simon, "Forecasting the Long-Term Trend of Raw Material Availability", from
Simon, *Economics Against the Grain*, vol 2 (Edward Elgar, 1998). (DB)
Supplemental: Meadows and Meadows, pp 66-78, in *Beyond the Limits* (Chelsea Green, 1992). (DB)
Supplemental: Bjorn Lomborg, Ch 11 from *The Skeptical Environmentalist* (DB)
Browse: <http://www.eia.doe.gov/>
Homework assignment #5 will be due before the start of the next class.

27 Sept, Week 6, The Environment

Hughes, ch 9
Lester Brown, Ch 2 (Signs of Stress), from *Eco-Economy* (DB)
Freeman Dyson, "The Question of Global Warming", *New York Review of Books*, June 12, 2008, (DB)
Thomas Homer Dixon, "On the threshold: Environmental Changes as Causes of Acute Conflict",
International Security, vol 16, no 2. (Autumn, 1991), pp 76-116 (YLE)
Brahma Chellaney, "Coming Water Wars", *The International Economy*, Fall 2009, pg 38-39. (YLE)
Browse: www.earth-policy.org (Lester Brown's site)
www.copenhagenconsensus.com (Lomborg's site)
Homework assignment #6 will be due before the start of the next class.

4 Oct, Week 7:

Test 1: Demography, Economics, Agriculture, Energy, Environment

11 Oct, Week 8: Democracy Hughes, Ch. 10

Larry Diamond, "Universal Democracy", *Policy Review*, pp 3-25, Jun 2003. (YLE)
Fareed Zakaria, "The Rise of Illiberal Democracy", *Foreign Affairs*. Nov/Dec 1977. (YLE),
Larry Diamond, "The Democratic Rollback", *Foreign Affairs*, pp 36-48, Mar/Apr 2008. (YLE))
Browse: www.cicdm.umd.edu/inscr/polity
Supplemental: Review of *The New Asian Hemisphere* (DB)
Supplemental: Daron Acemoglu, ch. 3 in *Economic Origins of Dictatorship and Democracy*, (YLEbooks
and DB)
Homework assignment #7 will be due before the start of the next class.

18 Oct, Week 9: State Failure, Power, War

Jack Goldstone, "How to Construct Stable Democracies", *The Washington Quarterly*, Winter, 2005, 28:1,
pp 9-20 (YLE and DB)
Jack Goldstone, "A Global Model for Forecasting Political Instability" *American Journal of Political
Science*, 54(1), Jan 2010 (YLE)
Ronald Inglehart and Wayne Baker, "Modernization, Cultural Change, and the Persistence of Traditional
Values", *American Sociological Review*, 2000, vol. 65 (Feb), p 19- 51. (YLE)
Jacek Kugler, "The Asian Ascent: Opportunity for Peace or Precondition for War?",
International Studies Perspectives, volume 7, 2006, pp 36-42 (YLE)
Supplemental: Steven Levitsky, *Competitive Authoritarianism, Introduction* (DB)
Homework assignment #8, will be due before the start of the next class.

25 Oct, Week 10: Development

Perkins: ch 20, "Sustainable Development", pp 757-804 (DB)

Lester Brown, Ch 1, "The Economy and the Earth" in *Eco-Economy* (W.W. Norton, 2001), (DB)
Beckerman: ch 2, "Finite Resources and the Prospects for Economic Growth" in
A Poverty of Reason. Independent Institute, 2002. (DB)
Homework assignment #9 will be due before class on 15 November.

1 Nov, Week 11: Foreign Aid

Perkins, ch 14, pp 519-554
Review Duflo and Banerjee's *Poor Economics*, especially, ch 11
Supplemental: Bruce Bueno de Mesquita and Hilton Root, "The Political Roots of Poverty" The National Interest, Summer 2002 (YLE)
Supplemental: Craig Burnside, "Aid, Poverty, and Growth", American Economic Review, Sept, 2000 (DB)
Supplemental: Paul Collier, Chapter 7, "Aid to the Rescue" from The Bottom Billion (DB)
Continue work on Homework Assignment #9.

8 Nov, Week 12: Poverty and Inequality

Perkins, ch 6 (DB)
Ann Harrison, Chapter 1 from *Globalization and Poverty* (IDB)
Supplemental: Hillebrand, "The Global Distribution of Income in 2050", World Development, 36:5, pp 727-740, 2008 (DB)
Supplemental: Robert Hunter Wade, "Is Globalization Reducing Poverty and Inequality", World Development, 32-4, pp 567-89, 2004 (DB)
Homework assignment #9 will be due before class on 15 November..

15 Nov, Week 13: Trade, Finance, and Migration

Review: Hughes, ch 6, pp 109-124.
Perkins, ch. 19, "Trade and Development", pp 709-756 (DB)
Evan Hillebrand, "Deglobalization Scenarios: Who Wins, Who Loses?"
Global Economy Journal, June, 2010, pp 1-15 (YLE)
Students should prepare their country study for oral presentations which will be given on 29 Nov. and 6 December

22 Nov: No Class, Thanksgiving Holiday

29 Nov, Week 14: Latin America Development

Sebastian Edwards, Chapter 1 and 2 (DB)
Hershberg, "Latin America After NeoLiberalism", ch 1 and 2 (DB)
Student Presentations

6 Dec, Week 15: African Development

Simon Johnson et. al, "Prospects for Sustained Growth in Africa, IMF WP /07/52 (DB)
Paul Collier, "On Missing the Boat" from the Bottom Billion (DB)
Student Presentations

University-Mandated Information

Student Learning Outcomes. Students will acquire the methodological skills to operate a large computerized model of the world system. Students will acquire a broad knowledge of the theoretical literature supporting the construction of the model. Students will learn to manipulate large data bases using the Excel programming language and will learn to write concise policy briefs.

Academic Integrity. Per university policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the university may be imposed. Complete information can be found at the following website: <http://www.uky.edu/Ombud>. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited

Attendance is not required at any class, therefore excuses for nonattendance are not necessary. If an assignment or test cannot be completed on time, the student must make prior arrangements with me. Classroom exercises must be turned in by the start of the class (but keep a copy because we might be going through or going beyond the exercise during class). Make sure you have access to the Blackboard site for this class. Get in the habit of checking it every day or so.

Major Religious Holidays. Students are responsible for notifying the Instructor of Record **in writing** of anticipated absences due to their observance of such holidays no later than the last day for adding a class.

Disabilities: Any student with a disability who is taking this course and needs classroom or exam accommodations should contact the Disability Resource Center, 257-2754, room 2 Alumni Gym, jkarnes@uky.edu.