

Empirical Methods

INTA 2010A

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T,Th 9:35-10:55

IC 115

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Hours: Th 11-12, or by appt.

The purpose of this class is to introduce you to the methods of social science research and to give you an understanding of how to use empirical research methods to support an argument or position. Learning this is of benefit to you because application of scientific methods to social phenomena imposes logical rigor—and a lot of common sense—to your efforts to understand those phenomena. This discipline makes you much more certain of precisely what you know and don't know, guides you in terms of what to do next so that you know more, and makes what you have done more transparent and compelling to others. While some believe that success in political argumentation is dominated by timing and presentation—and in the short term there is a lot of truth to that—in the long run the argument supported by evidence usually wins out. And even in the short run, a position that is well articulated and supported by evidence is formidable.

I believe that social scientific methods complement more history-oriented analyses, and the two approaches should not be viewed as being mutually exclusive. This class focuses on the scientific method because I believe it is for most individuals not immediately intuitive what needs to be done to execute the method properly with respect to social processes. On the other hand, the common sense that underlies so much of scientific research will be useful to you even if you never do a social scientific study after this class. What comprises a sound logical argument supported by evidence will probably never be the same for you.

More concretely, this class will cover the various aspects of empirical research methods including statistical analyses of sizeable datasets. The class first concentrates primarily on what social science really is and why one might want to use a social scientific approach as opposed to alternatives. The class then covers how to begin doing social science research and spends some time on a topic typically ignored by most texts, that is the development of models to guide one's thinking about a particular problem. After that we return to more of the mechanics of doing social science research. This class will attempt to give you a familiarity with a subset of the broad range of techniques or methodologies used by those who study international affairs. Some of the methods are common to almost any study one may wish to conduct. Others are determined by the kind of question one wishes to answer. For that second set of methods we will look at what are appropriate techniques for particular questions. So that these methods are more than abstractions, an emphasis of this class is hands-on experience with a number of techniques. For example, we will go through computer analyses of data using the computer and a projection system in the classroom. My intent is to "walk" you

through the steps of sample analyses so that you can then conduct real analyses and complete the class fully able and perhaps even eager to use these techniques in subsequent classes and later in your careers.

To make the topics of the class even more concrete, you will execute one of two types of empirical research projects through the 16 weeks of the course. The first alternative is to execute your own project, possibly with another student. For this alternative I want you to research a topic that is amenable to being addressed using information from many examples. For example, do wars that concern the creation of a new state from an existing state typically last longer than other wars? The second alternative is to participate in a group attempt to determine the answer to a nontrivial question. For example, is there a strong relationship between a country's GNP per capita or level of industrialization and the likelihood it can build and sustain a democracy? During the class we will periodically discuss your progress and the problems and challenges that emerge to confront you. There is nothing like actual execution of a task to teach you what it is about. You should immediately give serious thought about the topic of your project or what aspect of the group project you would like.

I expect adherence to the Georgia Tech Code of Conduct. Note also that to get an A with respect to class participation, you must do more than simply attend regularly. You need to ask questions or make relevant comments. A reasonable (but not perfect) rule of thumb for discerning whether you are doing A-level participation is whether I know your name when I call upon you.

Make use of the library, especially Mary Axford, who supports INTA (mary.axford@library.gatech.edu). She is very helpful.

Texts

Johnson and Reynolds, Political Science Research Methods.

Peter Bernstein, Against the Gods.

E. O. Wilson, The Creation.

Lawrence A. Kuznar, Reclaiming a Scientific Anthropology (on reserve).

Your choice of one of these two books:

William Bernstein, A Splendid Exchange

Niall Ferguson, The Ascent of Money

I will make other documents available online. These will include my Powerpoint slides and parts of papers I have written that are directly relevant. My slides and lectures will include references to other documents available on the web.

Schedule for Week of:

Aug. 22	Introduction and Structure of Class
Read:	Johnson and Reynolds, Chapter 1 P. Bernstein, Introduction through Chapter 2

- Aug. 29 Developing Models/Acquiring Knowledge
Read: Johnson and Reynolds, Chapter 2
 W. Bernstein or N. Ferguson
- Sept. 5 Alternative Approaches
Read: Kuznar, pp. 1-172
 Wilson
- Sept. 12 Types of Research and Making Inferences
Read: Johnson and Reynolds, Chapters 3 & 5
 Bernstein, Chapter 3 through Chapter 5
- Sept. 15: FIRST MIDTERM EXAM*
- Sept. 19 Building Blocks of Social Science
Read: Johnson and Reynolds, Chapters 4 & 6
 Bernstein, Chapter 6 through Chapter 11
- Sept. 26 Elements of Research Design: Observations and Evidence
Read: Johnson and Reynolds, Chapters 7 & 8
 Bernstein, Chapter 12 through Chapter 15
- Due on Sept. 29: 1000-word paper describing individual research project (problem, background, model, and evidence needed)*
- Oct. 3 Sampling and Survey Methods
Read: Johnson and Reynolds, Chapters 9 & 10
- Oct. 10 Introduction to Probability and Statistics
Read: Bernstein, Chapter 16 through Chapter 19
- Due on Oct. 13: Survey exercise*
- Oct. 17 More Probability and Statistics (no class on Oct. 18)
- Oct. 24 Descriptive Statistics
Read: Johnson and Reynolds, Chapter 11
- Oct. 27: SECOND MIDTERM EXAM*
- Oct. 31 Hypothesis Testing
Read: Johnson and Reynolds, Chapter 12
- Due on Nov. 2: First statistics exercise*
- Nov. 7 Analyzing Interval-level Data
Read: Johnson and Reynolds, Chapter 13

Nov. 14 Analyzing Categorical and Mixed Data
 Read: Johnson and Reynolds, Chapter 14
Due on Nov. 17: Second statistics exercise

Nov. 21 Theory and Evidence (no class on Nov. 24)

Nov. 28 Presentation of Research Findings

Dec. 5 Presentation of Research Findings

The Final Exam is scheduled to be on Tuesday, December 13th at 8 am.

Determination of Final Grade

class participation (which is more than attendance)	20%
first midterm exam	10%
second midterm exam	10%
3 exercises	5% each
presentation/paper of research project	30%
final exam	15%