

P.S. 300/CRJ 300 INTRODUCTION TO POLITICAL ANALYSIS Prof. Frank Wayman
Fall Term 2015 Mon. 6:00-8:45 PM Room 1152 Admin. Bldg. 150824
Office Hrs.: Mon.&Th. 5:00-5:30 PM, and Tues. 12:15-1:15 PM
E-mail: fwayman@umich.edu
Room 2164 Soc. Sci. Bldg. (SSB), 593-5226 Messages: 593-5096.
This syllabus or a slightly earlier version of it is available at my website,
<http://www-personal.umich.edu/~fwayman>

Read this syllabus carefully! It has substantive information, not just dates. You are responsible for it for the exams, just as you are for the reading assignments; we will go over it thoroughly in class, throughout the course.

INTERDISCIPLINARY FOCUS:

The skills taught in this course are broadly relevant, not only at the university, in political science, sociology, criminal justice, economics, public administration, and business administration, but also in government and business. Consequently, the lectures will emphasize applications in a broad variety of settings.

The purpose of this course is to provide students with basic skills in political analysis. It is oriented to practical problems in the analysis of political behavior. A word or two about that . . . Let me begin with the definition of political science that I use. It is from the start of the introductory book on political science used at Penn when I was in grad school there, a book written by my professor, Herbert Spiro, and the definition he gives is the first published definition of political science, by Aristotle:

If then there is some end to the things we do, which we desire for its own sake (everything else being desired for the sake of this) . . . clearly this must be . . . the chief good. . . . If so we must try . . . to determine what it is, and of which of the sciences or faculties it is the object. It would seem to belong to the most authoritative science and to that which is most truly the master science. And politics appears to be of this nature; for it is politics that ordains which of the sciences should be studied in a state, and which each class of citizens should learn. . . . And we see even the most highly esteemed of the faculties to fall under this, e.g., strategy, economics, rhetoric; now since politics uses the rest of the sciences, and since again it legislates as to what we are to do and what we are to abstain from doing, the goal of this science must include those of the others, so that this end must be the good for man. . . . These, then, are the goals at which our inquiry aims, since it is political science, in one sense of that term. -- Aristotle, *Nichomachean Ethics*, book I, 2. (quoted in Spiro, 1970: 2)

A year ago, I published a book embodying the teaching in the course. The book is titled, *Predicting the Future in Science, Economics, and Politics* (Wayman, Williamson, Polachek, and Bueno de Mesquita, 2014). To create the book, we convened analysts from two hedge funds (a president of one and a partner in the other), as well as from physics, biology, electrical engineering, computer science, psychology, environmental studies, international studies, economics, and political science -- all of whom fit in together marvelously. Likewise, in my grad school at Penn, there were such figures I got to know as Russell Ackoff, one of the founders of operations research, and Walter Isard, founder of the Peace Science Society, and I didn't see a whit of fundamental difference between their methods of analysis and those in political science. Last term, a number of students in the class were in criminal justice. The big news in criminal

justice this year seems to be about instances, such as in New York this week, where African-Americans (e.g., in NYC it was a former Ivy League student, James Blake) get manhandled or worse by the police. In the case of Blake, in New York, we can all see on camera it was for no misbehavior whatsoever on his part. And we have to deal as a society with the fall-out from that, and re-think criminal justice. So it helps that our term paper is focused on public opinion data about race, politics, and the question of law and order.

While other courses deal with substantive areas of knowledge, this one deals with the acquisition of abilities and the mastery of techniques. At the end of the semester there will be a term paper which will require you to apply the knowledge that you have acquired. This assignment will involve the analysis of public opinion data or other political data (e.g., data on members of Congress, or on nations and their involvement in wars and militarized disputes). The course does not require advanced mathematical skills (i.e., above the ninth grade level) or any prior knowledge of the computer.

COURSE REQUIREMENTS:

In this course, as in all university courses, students are expected to do two hours of outside work for every hour in class. Students who do not expect to be able to do this should not take this course. In addition to the assigned readings and exercises, there will be two types of projects throughout the semester: data collection and data analysis. It is these practical assignments that will be the true test of your learning.

GRADES:

There will be three exams during the semester, plus a term paper. These four items will count about equally in the grading for the course. In addition, there will be grades given throughout the term for special assignments in data collection and analysis. These, along with class participation and attendance, will count for twenty percent of the grade.

Because of the nature of this course, in which understanding of one week's material depends on knowledge gained in prior weeks, and in which it is important to participate in the learning process in class, attendance will be compulsory. Sign-up sheets will be passed around each day in class, to assure attendance. Students missing class will be required to bring a doctor's note or document of similar gravity to avoid penalty for non-attendance. Also, UM-D makes reasonable accommodations for persons with documented disabilities. Students should register with the Disability Resource Services Office within the first few weeks of the semester to be eligible for services that semester.

I have been asked by the Provost to include the following statement (which should go without saying): The University of Michigan values academic honesty and integrity. Each student has a responsibility to understand, accept, and comply with the University's standards of academic conduct as set forth in the Code of Academic Conduct, as well as policies established by the schools and colleges. Cheating, collusion, misconduct, fabrication, and plagiarism are considered serious offenses. Violations will not be tolerated and may result in penalties up to and including expulsion from the University. Other administrators think it is important that you be told what our bureaucratic goals are, so I have been told to place this website in the syllabus:

<http://www.casl.umd.umich.edu/politicalsciences/>

ON E-MAIL ETIQUETTE:

While e-mail has become a very important means of communication between students and faculty, it is important to observe appropriate norms of behavior. Because of the threat from viruses and similar plagues, I do not open emails that do not have your name as the sender, or emails that do not have a subject heading that indicates a topic related to you and the course. I also do not open e-mail attachments that you and I have not agreed to exchange in advance. This means your e-mail must actually be readable by me when I click on it; in other words, when I open an e-mail and there is no text because all the text has been placed in an attachment, I do not open the attachment. Please respect these requests of mine if you wish to contact me, and I look forward to hearing from you. Finally, on some of my computers I use the 2003 version of Microsoft Office, the one that has 3-digit suffixes such as .doc, .xls, and so on; I will not be able to receive any files, even if we have agreed to exchange their content, that have a 4-digit suffix (such as .docx). So if you have the newer version of Microsoft software, just save them as the older version, with the 3-digit suffix. Thank you!

TEXTS:

Students should acquire the following from the bookstore:

William Buchanan, *Understanding Political Variables*, 4th ed.;
Herbert Weisberg, Jon Krosnick, and Bruce Bowen, *An Introduction to Survey Research and Data Analysis*, (Glenview, Ill.: Scott, Foresman, 1989), 3rd ed.;
a course-pac of miscellaneous readings.

Recommended:

Ronald Stockton and Frank Wayman, *A Time of Turmoil*

Each student should buy the course pack, available from Dollar Bill Copy, for sale on line or at their toll-free number. \$Bill can be reached at 1-877-738-9200, or at www.dollarbillcopying.com. At the website, go to order products on line, then to the order course packs on line bar, then to UM-D, then to the course number. After selecting all those things, proceed to order, give mailing info., credit card, and \$Bill ships next day UPS to your address.

MISSED DEADLINES:

If you miss an examination or deadline, and have the required doctor's note or similar document, you will be allowed to take a make-up or complete the assignment, but you will also be required to do an additional research assignment as evidence of good faith. The assignment may consist of gathering some data relevant to the class research project.

NOTE: The deadlines set in the course outline below are generally dated the day (or a few days) before class. This indicates the readings and workbook assignments that should be completed in preparation for

the class the next day.

COURSE OUTLINE:

The Nature and Purpose of Social Science Analysis--

Facts and Empirical Inquiry. "Concepts," "operationalization," "variables," "hypotheses," "theory," "intersubjective verification," and "the failure to disconfirm," provide enough jargon to allow us to talk to each other for the rest of the course. To be completed by SEPT. 14TH.

Definitions of the above, foundational terms:

concept: "A word that expresses an abstraction formed by generalization from particulars." Source of quote -- Fred Kerlinger, *Foundations of Behavioral Research* (N.Y.: Holt, Rinehart, and Winston, 1967), p. 4.

definition (also called conceptual definition or verbal definition): the words used to describe a concept, as in the dictionary.

variable: a concept that has been measured and quantified

operational definition (or operationalization): a set of rules for measuring a concept

hypothesis: a proposition relating two different variables

theory: "A theory is . . . a simple set of propositions that provides a large number of explanations. Einstein noted that a 'theory is the more impressive the greater is the simplicity of its premises, the more different are the kinds of things it relates and the more extended its range of applicability.'" -- Richard Alexander, "Darwin's challenges and the future of human society," in Frank Whelon Wayman et al., eds., *Predicting the Future in Science, Economics, and Politics* (Cheltenham, UK: Edward Elgar Publishing, 2014), p. 72 (quote repeated in same book on pp. 241-242)

inter-subjective verification: this is simply the idea that two different reasonable people can agree on the test of a hypothesis if (a) the variables have been measured in a transparent, objective, and clearly specified manner, and if (b) their degree of association with each other has been ascertained in a valid method (such as an experimental design). Without success at both these matters (namely, a and b), science would be personal and subjective, and would lack validity.

failure to disconfirm: Charles Darwin and later Karl Popper came up with the idea that scientific theories are not ever fully proven, but rather become more and more convincing as more and more efforts to disprove them have failed. Alexander, on p. 66 of the work cited above, attempts to explain this in the case of Darwin:

"Darwin's various challenges were mostly in the form of hypotheses that if rejected would destroy his general theory. Hypotheses are surely the most important part of science. Grand and informed hypotheses, of the sort Darwin presented to us so long ago, are the ultimate intellectual stimulants to students of cause and effect in the world at large.

"Darwin declared that, under certain conditions that he described, his general theory of life would absolutely break down. He did not say that if complex organs could be formed in ways other than as he indicates, his theory might break down, might have to be modified, or might be weakened or less useful, or any such thing. He did not rest until he had worked out a statement that, if true, would cause his theory, of how the entire world of life had come about, to absolutely break down. Such unequivocal falsification efforts best encourage the testing of scientific ideas. This 150-year-old example is an early such challenge, and surely one of the first clear and truly beautiful ones. Not surprisingly, his theory has never been successfully challenged, or falsified."

Alexander, at that page 66, also gives reasons falsification is superior to mere justification of theory.

Readings: Weisberg, Krosnick, and Bowen, chs. 2 and 8 (The Survey Process and the Process of Data Analysis)

Course-pac, Reading No. 1 -- read an example of a

theory, Wayman, "A Cooperative Solution to Prisoner's Dilemma." (this is an example of deductive game theory).
Reference: This is an excerpt from a ch., "From Altruism to the Future Frequency of war", pp. 327-45 of Wayman et al., *Predicting the Future in Science, Economics and Politics*.

Course-pac, Reading No. 2 -- operationalization of concepts: Dearborn panel questionnaire (party i.d., post-materialism, political trust and efficacy, political information)

Course-pac, Reading No. 3 -- Wayman, "Scientific Revolutions and the Advancement of Explanation and Prediction." a ch. from Wayman et al., *Predicting the Future in Science, Economics and Politics*. (pp. 427-458)

Workbook: Buchanan, chs. 1-3 (pp. 1-62)

In class:

Introduction to course; introduction to the scientific method and social science; to be more specific:

concepts -- examples from international politics: 'capabilities' and 'power' and 'war'; ex. from comparative politics: 'post-materialism'; ex. from American politics: 'party identification.'

theory -- Normative theory is designed to recommend regimes and/or policies, criticize regimes and/or policies, or suggest appropriate patterns of citizen behavior. E.g. Plato's cave, the *Republic*. Empirical theory is designed to explain and predict behavior. Anthony Downs' empirical theory of democracy (from his book, *An Economic Theory of Democracy*).

hypotheses -- Ex.: Stanley Milgram's *Obedience to Authority* and competing hypotheses predicting different patterns of human behavior.

basic terms, illustrated with panel study questionnaire: independent and dependent variables; nominal, categoric, and interval measurement; Likert indices.

review of exercises;

bivariate relations and causality (Hypotheses can be purely formal, or can posit that A comes before B, or can be causal: A causes B.)

Values and Normative Inquiry--

Some tools for evaluative reasoning about social problems will be discussed. To be completed by SEPT. 21ST.

Readings: Course-pac reading No. 4, John Rawls, *A Theory of Justice*, pp. 60-78, 266-271.

Workbook: Buchanan, ch. 16 (pp. 241-250)

Workbook: A one-page dittoed exercise will be handed out,

dealing with where to site a new hospital; the choice of location depends on whether the decision maker follows a utilitarian, egalitarian, or Rawlsian social decision rule.

In Class: Comparison of Social Decision Rules in Rawls' Framework. Utilitarianism, Egalitarianism, Rawlsian social justice.

Research Design--

Any scientific research project should begin with an overall plan. What are the questions to be investigated? How can these questions best be answered? What evidence should be gathered? Where and when? What sorts of findings would support the hypotheses? What would require rejection of the hypotheses? The following readings should be half-way completed by SEPT. 28TH AND fully completed by OCT. 5TH.

Readings: Stockton and Wayman, *A Time of Turmoil*, Appendix A (course pack); Wayman and Grofman, *Racial Fears and Realignment in 20th century America* (course pack);

Weisberg, Krosnick, and Bowen, ch. 13;

Hall and Wayman, "Buying Time," Course-pac.

Workbook: Buchanan, chs. 4, 9, 14, and part of 5 (pp. 61-81, 135-148, and 205-224)

In Class:

Causation and Research Design

True Experimental Design: frustration and aggression vs. modelling and aggression, TV and violence; Iyengar and Kinder on media, agendas, and priming.

Non-Equivalent Control Group Design: Milgram's Obedience to Authority;

Interrupted Time-Series Design: Wayman's study of whether military alliances spread war or deter war; Hibbs on American and British elections, and the impact of the new government on inflation and unemployment.

Correlational Design -- 3rd Variable Controls. Predicting the vote for president from a voter's position on the issues, party ID, and assessments of candidates' character.

Discussion of Exercises

Discussion of research article -- Hall and Wayman, "Buying Time"

The FIRST EXAM will cover the above material, and will take place OCT. 12TH or 19TH. (5th or 6th class period)

Data Analysis. Once hypotheses have been constructed, they must be tested by looking at the evidence. We will learn some basic

statistical procedures for analyzing data. For the term papers, actual data analysis will be conducted using MIDAS or SPSS, computer software packages of statistical programs which make our lives easier.

Univariate Statistics-- Complete by OCT. 15TH.

Readings: Weisberg, Krosnick, and Bowen, chs. 9 and 10

Workbook: Buchanan, ch. 10 (pp. 149-170), ch. 15 (pp. 225-240)
In Class: Mean, Standard Deviation, Standard Error of the Mean, Standard Error of the Difference between two means.

Contingency Tables--

Examining relationships among categorical variables. OCT. 15TH.

Readings: Weisberg, Krosnick, and Bowen, ch. 11 and 12

Workbook: Buchanan, chs. 5-8, 13, 17-18 (pp. 79-134, 181-194, 251-286). Note typo at p. 264 of Buchanan: there should be a bar over the last x in the denominator of the formula for b ; without the bar the denominator would be zero, and one cannot divide by zero.

In Class: Correlation Coefficients and Chi Square

Correlation and Regression-- Fitting a line through a set of points, and measuring the goodness of fit. Complete by OCT 22ND. 25TH.

Readings: Weisberg, Krosnick, and Bowen, ch. 14

Workbook: Buchanan, ch. 19 (pp. 287-302). Note typo at p. 290 of Buchanan: there should be sigmas (summation signs) in front of each of the parenthetical terms in the formula for r -squared; the correct formulas, with the sigmas, are on Buchanan, p. 288.

In Class: Correlation Coefficients and Regression

Dimensional Analysis, Indices, and Scales. These terms refer to methods of improving measurement and clarifying the meaning of concepts. The following techniques will be illuminated through examples of their use: index construction (Likert "scaling"), Guttman scaling, and factor analysis. OCT. 29TH.

Readings: Weisberg, Krosnick, and Bowen, pp. 174-81.

Workbook: Buchanan, ch. 11 (pp. 171-180)

In Class: How to do Guttman scaling

Racial and Law and Order Factors from the Dearborn panel

Causal Analysis-- By combining theory with regression analysis, one can move from knowledge of correlations to knowledge of causal patterns. Multiple regression and path analysis, and two-stage least squares examples will be given. NOV 6TH.

Readings: Weisberg, Krosnick, and Bowen, ch. 13, and pp. 270-77.
Workbook: Buchanan, ch. 20-22 (pp. 303-352)

In Class: Explanations of U.S. Presidential election voting

Using the Computer: SPSS-- NOV. 10TH

Readings: Handout of commands

Workbook: Buchanan, ch. 13 (pp. 195-204)

Assignment: Go to the campus computers and run a canned program
In Class:

UMCE; SPSS commands

Your Term Paper. Look at the sample term paper, written by Dov Gardin, in the course pack. Not writing the paper in the form he has done, with contingency tables, having number of cases and percents in each cell, and with significance levels and chi-square and (except for nominal-level variables) correlation coefficients, will normally result in a grade of F.

The SECOND EXAM, covering everything since the first exam, will be MON., NOV. 16TH. THANKSGIVING IS NOV. 26TH (no class)

Reliability and Validity-- A reliable measure produces the same results under the same circumstances. A valid measure measures what it is supposed to measure. For example, IQ tests are a reliable measure: they will produce about the same results for the same individual time after time. NOV. 23RD.

Readings: Weisberg, Krosnick, and Bowen, pp. 76-78;

Wayman and Singer, "Evolution and Directions for Improvement in the Correlates of War Project Methodologies" (course-pac);
Lee Cronbach, *Essentials of Psychological Testing*, pp. 122-125 -- handout

In Class:

The four types of validity -- the LSAT and predictive validity, practice LSATs and concurrent validity, final exams and content validity, and anxiety tests and construct validity

Internal and External Validity -- in experimental designs

Modes of Observation--

These are the different techniques used to gather data.
NOV. 30TH AND DEC. 7TH.

Survey Research. Administering questionnaires to people is time consuming, costly, and tedious, but those who love it (whether or not they are living off a large grant from the National Science Foundation) claim that it reveals important aspects of the world we live in. Proctor and Gamble, which is always using it to find what products people will buy, agrees. So do many students of organizational behavior, of American electoral politics, and of other important fields of social science.

Readings: Weisberg, Krosnick, and Bowen, chs. 1-7.

In Class:

Designing a Survey

Writing Questions

Interviewing

Interviewer Training

Aggregate Data Analysis and other modes of observation (content analysis, evaluation research, etc.)-- DEC. 7TH.

Readings: Weisberg, Krosnick, and Bowen, ch. 1

In Class: Elite Interviewing; Library and data bank resources; evaluation of the effectiveness of government programs; content analysis of the Congressional Record.

Writing and Disseminating Research Findings. DEC. 7TH.

Readings: Weisberg, Krosnick, and Bowen, chs. 15-17

Assignment: Write your term paper.

In Class: Other Modes of Research; Uses of Social Science

Term papers are due Mon., Dec. 7th, at 5 PM. IMPORTANT: To receive your computer analysis portion of the course grade (10% of the grade), you must hand in two copies of your term paper, WITH YOUR SPSS PRINTOUT ATTACHED TO ONE OF THE TERM PAPER COPIES AND A XEROXED COPY OF IT ATTACHED TO THE OTHER. All copies must be printed. (Please also send along a Computer attachment version in an email, just for back-up, but the **printed** copies are REQUIRED.)

The last class will be Mon., Dec. 7th. UM-D "study day" is Dec. 12th.

The THIRD EXAM will be Mon., Dec. 14TH, at 6:30 PM.

References:

Cronbach, Lee (1970) *Essentials of Psychological Testing*, 3rd ed. N.Y. Harper and Row.

Downs, Anthony (1957) *An Economic Theory of Democracy*. N.Y.: Harper and Row.

Hall, Richard Lee, and Frank W. Wayman (1990) "Buying Time: Moneyed Interests and the Mobilization of Bias in Congressional Committees." *American Political Science Review*, Vol. 84, No. 3 (September): 797-820.

Hibbs, Douglas (1977) "Political Parties and Macroeconomic Policy." *American Political Science Review*, Vol. 71, No. 4 (December): 1767-1787.

Iyengar, Shanto, and Donald Kinder (1987) *News that Matters: television and American opinion*. Chicago: University of Chicago Press.

Milgram, Stanley (1974) *Obedience to Authority*. N.Y.: Harper and Row.

Rawls, John (1971) *A Theory of Justice*. Cambridge, Mass.: Harvard University Press.

Spiro, Herbert (1970) *Politics as the Master Science: from Plato to Mao*. N.Y.: Harper and Row.

Wayman, Frank Whelon, Paul R. Williamson, Solomon Polachek, and Bruce Bueno de Mesquita (2014) *Predicting the Future in Science, Economics, and Politics*. Cheltenham, U.K.: Edward Elgar Publishing.

Wayman, Frank Whelon, and J. David Singer (1990), "Evolution and Directions for Improvement in the Correlates of War Project Methodologies", in J. David Singer and Paul F. Diehl, eds., *Measuring the Correlates of War*. Ann Arbor, Mich.: University of Michigan Press.