

GVPT 221 - FALL 2009

INTRODUCTION TO FORMAL THEORIES OF POLITICAL BEHAVIOR AND POLITICS

Instructor: Professor Piotr Swistak, TYD 1140 G, tel. 405-4149
email: pswistak@gvpt.umd.edu.

Office hours: Mondays and Wednesdays: 1:00pm-2:00pm in TYD 1140 G. If this time is not good for you, send me an email and we will arrange some other time to meet.

Lectures: SQH 1117, Mondays and Wednesdays 2:00pm – 3:15pm.

Teaching Assistants: Henry Jin and Max Nehl will be our TAs. Henry will be available for help on Thursdays 2:00pm—3:00pm in MMH 3418; Max will be available on Wednesdays 12:00pm—1:00pm in TLF 1101. They will start their help hours the week of Sept 14.. Their email addresses are: hjin@umd.edu and mnehl@umd.edu .

A message from the Honors Council:

The Student Honor Council encourages any individuals teaching a course Fall semester to include the following information in the course syllabus:

The University of Maryland, College Park has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This Code sets standards for academic integrity at Maryland for all undergraduate and graduate students. As a student you are responsible for upholding these standards for this course. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For more information on the Code of Academic Integrity or the Student Honor Council, please visit www.shc.umd.edu.

To further exhibit your commitment to academic integrity, remember to sign the Honor Pledge on all examinations and assignments: "I pledge on my honor that I have not given or received any unauthorized assistance on this examination (assignment)."

Materials for this class (e.g., syllabus, readings, lecture notes, sample test questions) will be posted on <https://elms.umd.edu>

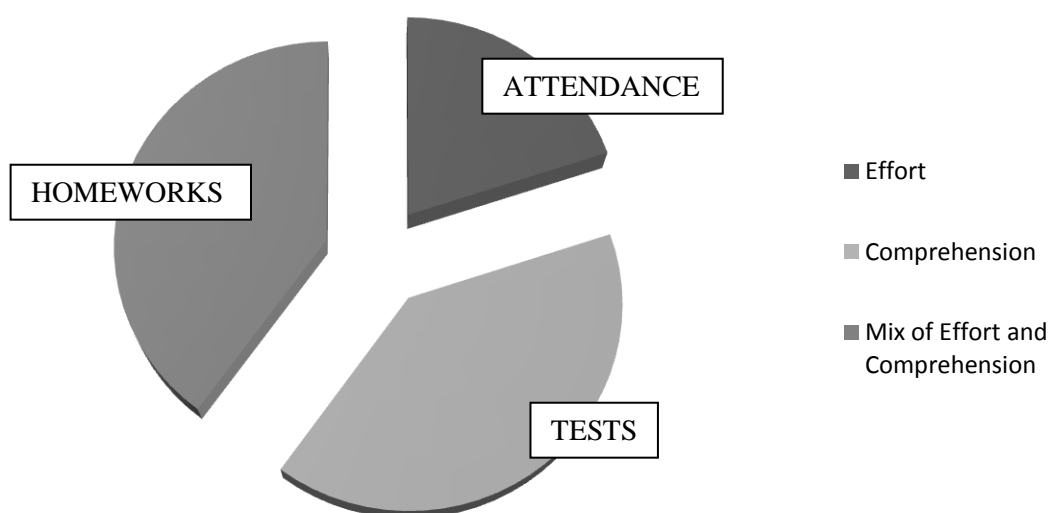
If you look up ANY major journals in political science (e.g., the American Political Science Review) you will see that a good part of the modern political science looks more like physics and other “hard” sciences than a traditional social science. This is the new face of the science of politics and the direction in which the discipline is moving rapidly. My objective in this class is (1) to show you the reasons for this transformation, (2) to teach you how formal theories are constructed, and (3) to show you how this mode of research can be applied to solve a number of important problems of politics and society. The list of topics below will give you an idea about the scope and the content.

READINGS

All readings will be placed on ELMS.

WARNING

This is not a typical social science class. Much of the material is deductive and mathematical—**students who do not like this type of reasoning may find it agonizing.**

GRADING**My philosophy of fair grading****MANDATORY GRADING**

TESTS (40%): There will be four mandatory tests. All tests are closed book.

For each test there will be an optional make-up that will allow you to improve your grade. A make-up will have a form of a conversation with me in which you will explain the nature of your mistakes on the test and answer any questions I may have about the related material; I have to be convinced that you understand the concepts and are able to use them. “Make-ups” will count as 50% of your test grade. (Assume, for example, that your score on Test 1 was 70% and you want to improve it by taking a make-up. Suppose that your score on the make-up test is 100%. In that case your total score for Test 1 will be determined as: $0.5 \cdot 70\% + 0.5 \cdot 100\% = 85\%$.) The average of the four test grades will count as 40% of your class grade.

HOMEWORKS (40%): There will be several homework assignments I will ask you to turn in. The average of your homework grades (all homeworks carry the same weight) will count as 40% of your class grade.

PARTICIPATION (20%): Your attendance, expressed as percentage of classes you have attended, will

count 20%.

EXTRA CREDIT

There are two additional ways to improve your grade:

CLASS PERFORMANCE: Occasionally we will have individual/group “competitions” in class. They will count as follows: All extra credits you have accumulated, if any, will be classified into three categories: top, middle and low. Students in the top category will get an extra 3%, middle 2% and low 1%.

FINAL EXAM (Thursday, December 17, 1:30pm–3:30pm in our regular classroom): An optional way to improve your grade is by taking the final exam. Final exam will count for 50% of your test grade. For example, suppose that you take four tests and your average test score is 86%. In that case if you decide not to take the final exam, your class grade will be calculated with the 86% test average counting as 40% of your class grade. If, however, you take the final and score 94% on it, your class grade will be calculated with $0.5 \cdot 86\% + 0.5 \cdot 94\% = 90\%$ counting as 40% of your class grade.

MISCELLANEOUS

SPECIAL PROBLEMS AND SITUATIONS

If you have any problems, e.g., medical, that can affect your performance in class you should let me know immediately. We may be able to resolve the problem if you come and tell me about it in advance.

MISSING A TEST will **not** be **allowed** except for extraordinary circumstances like medical emergencies, jury duty, etc, for which I will ask you to supply relevant documents (from the physician, court, etc). You have to inform me about such emergencies immediately and **no later than a week after** the missed test. If you neglect to document your absence within a week, I will assign zero points to a missed test; there will be no appeals.

LECTURES VERSUS READINGS: A good part of the material will not be contained in the readings and will only be presented in class. Most of the readings are not a substitute for what we do in class—they are **supplementary**. Attending classes, for all I know from past generations, seems necessary to do well in this course.

Please don't use **NOTEBOOKS** in class.

Readings on ELMS come from the following sources:

Robert Axelrod, *The Evolution of Cooperation*, Basic Books, 2006 (1st ed. 1984.)

Avinash Dixit and Susan Skeat, *Games of Strategy*, Norton, New York, 2004.

Reid Hastie and Robyn M. Dawes, *Rational Choice in an Uncertain World*, Sage Publications, 2001.

David Kreps, *Notes on the Theory of Choice*, Westview Press, 1988.

William Riker, *Liberalism against Populism*, Waveland Press, 1982.

Raymond Wilder “The Axiomatic Method,” pages 1621-1640 in *The World of Mathematics*, Simon and Schuster, 1956.

(TENTATIVE) SCHEDULE OF TOPICS AND RELATED READINGS

NOTE: ALL READINGS ARE DUE AFTER THE RELEVANT MATERIAL HAS BEEN EXPLAINED IN CLASS

WEEK 1 (Aug. 31 & Sept. 2)

Introductory Material

WEEK 2 (Sept. 7 & 9)

How Good Is Our Common Sense and Non-Scientific Thinking? Probability Fallacies

Hastie and Dawes, pages 121-128 and 179-185

WEEK 3 (Sept. 14 & 16)

Assignment 1 posted on Sept 16; due Sept 29.

Framing, Sunk Cost Fallacies, Hindsight, Anchoring and Adjustment, Grouping and Ordering Alternatives

Hastie and Dawes, pages 36-42, 99-110, 146-151, 135-143, 237-246, 298-308

WEEK 4 (Sept. 21 & 23)

Constructing a Formal Theory, the Milton Friedman's Advice

Raymond Wilder, pages 1621-1640.

WEEK 5 (Sept. 28 & 30)

Assignment 2 posted on Sept 30; due Oct 7.

*What Is Rationality And Why Should We Be Rational?
Theory of Preferences*

Kreps, pages 7-9.

WEEK 6 (Oct. 5 & 7)

Game Theory: Basic Concepts and Their Interpretations

Dixit and Skeath, pages 3-14, 27-34

WEEK 7 (Oct. 12 & 14)

Test 1 on biases and preference theory on Oct 14.

The Structure of Hobbes' Argument, a General Principle behind It, and a Case of Two—Party Competition

Dixit and Skeath, pages 83-114

WEEK 8 (Oct. 19 & 21) **Assignment 3 posted on Oct 21; due Nov 4.**

The Man Behind "A Beautiful Mind: " The Contribution of John Nash

No new readings, Dixit and Skeath, pages 83-114 will do

WEEK 9 (Oct. 26 & 28)

A Model of Negotiations

Dixit and Skeath, pages 45-55

WEEK 10 (Nov. 2 & 4) **Test 2 on basic game theory on Nov 4.**

Cooperation in Systems without Government; Repeated Games

Axelrod, pages 3-17, 27-32

WEEK 11 (Nov. 9 & 11) **Assignment 4 posted on Nov 11; due Nov 18.**

Cooperation in Systems without Government; Evolutionary Games

Axelrod, pages 73-87

WEEK 12 (Nov. 16 & 18)

Rousseau's General Will and the Nature of Democracy; Social Choice Theory

Riker, pages 1- 19

WEEK 13 (Nov. 23 & 25) **Test 3 on repeated games on Nov 25.**
Also Assignment 5 posted on Nov 25; due Dec 2.

The 1912 Presidential Election and Some Problems with the Voting Rules

Riker, pages 41-46, 51-58, 65-68, 99-101 and 115-123

WEEK 14 (Nov. 30 & Dec.2)

The Problem with Democracy: the Arrow's Theorem

No new readings

WEEK 15 (Dec. 7 & 9) **Test 4 on social choice.**