

## **FORMAL THEORY AND METHODOLOGY FIELD REQUIREMENTS**

### **REQUIREMENTS**

For a major in the formal theory and methodology subfield candidates must take a core exam and two theme exams from the list below. For a minor, candidates must take a core exam and one theme exam. Candidates are required to assemble a committee of two faculty members and meet with them before setting an exam date in order to determine the scope of the student's exam.

### **THEMES**

There are 6 themes:

- (1) Decision making
- (2) Formal models of politics
- (3) Quantitative statistical methods
- (4) Qualitative statistical methods
- (5) Experimental methods
- (6) Strategy, game theory, and bargaining

### **READING LISTS**

The reading lists below contain examples of the readings with which candidates should be familiar before taking the exam. This list is not exhaustive, and does not include many important books and articles within the several sub-fields. *Before your examination in the core for this field, you must meet with the field committee to reach a consensus on the range of materials you will be responsible for.*

#### **Core reading list:**

Robert Axelrod, *The Evolution of Cooperation*  
Kenneth Arrow, *Social Choice and Individual Values*  
Duncan Black, *The Theory of Committees and Elections*  
James Buchanan and Gordon Tullock, *The Calculus of Consent*  
James Coleman, *Foundations of Social Theory*  
James.D. Morrow, *Game theory for political scientists*  
Ken Binmore, *Fun and Games*  
Avinash K. Dixit and Barry J. Nalebuff, *Thinking Strategically*  
Thomas C. Schelling, *The Strategy of Conflict*

David M. Kreps, *Notes on the theory of choice*  
 Persson and Tabellini, *Political Economics*  
 Anthony Downs, *An Economic Theory of Democracy*  
 James Enelow and Melvin Hinich, *The Spatial Theory of Voting*  
 Kahneman, and Tversky, Amos. *Judgement Under Uncertainty: Heuristics and Biases.*  
 John Maynard Smith, *Evolution and the Theory of Games*  
 McKenzie and Tullock, *Modern Political Economy; An Introduction to Economics*  
 Gary King, Robert O. Keohane, and Sidney Verba, *Designing Social Inquiry*  
 Niskanen, *Bureaucracy and Representative Government*  
 Douglass North, *The Rise of the Western World*  
 Mancur Olson, *The Logic of Collective Action*  
 Peter Ordeshook, *A Political Theory Primer*  
 Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action*  
 Howard Raiffa and Duncan Luce, *Games and Decisions*  
 William H. Riker and Ordeshook, *Positive Political Theory*  
 William H. Riker, *Liberalism Against Populism*  
 William Riker, *The Theory of Political Coalitions*  
 Thomas Schelling, *The Strategy of Conflict*  
 Kenneth Shepsle and Mark Bonchek, *Analyzing Politics*  
 Gordon Tullock, *The Politics of Bureaucracy*  
 Wilson, E. O. *Consilience*  
 Jeffrey M. Wooldridge, *Introductory Econometrics: A Modern Approach, 5th ed.*

**(1) Decision making.**

David M. Kreps, *Notes on the theory of choice*  
 Allan Feldman, *Welfare Economics and Social Choice Theory*  
 Robyn Dawes, *Rational Choice in an Uncertain World*  
 Goldstein and Hogarth, *Research on Judgment and Decision Making*  
 Irving Janis and Leon Mann, *Decision Making*  
 Kahneman and Tversky, *Judgment under uncertainty: Heuristics and Biases*  
 Howard Raiffa, *The Art and Science of Negotiation*  
 Howard Raiffa and Duncan Luce, *Games and Decisions*  
 Robert Axelrod, *The Evolution of Cooperation*  
 Jerome Barkow, Leda Cosmides & John Tooby. *The Adapted Mind*  
 Robyn Dawes, *Rational Choice in an Uncertain World*  
 Harcourt and Frans De Waal, *Coalitions and Alliances in Humans and other Animals*  
 John Holland, *Hidden Order: How Adaptation Builds on Complexity*  
 Kenneth Shepsle and Mark Bonchek, *Analyzing Politics*  
 Somit and Peterson, *Darwinism, Dominance and Democracy: The Biological Bases of Authoritarianism.*

Stewart, *Calculus*

E. O. Wilson, *Consilience*

**(2) Formal models of politics.**

Kenneth Arrow, *Social Choice and Individual Values*

Duncan Black, *The Theory of Committees and Elections*

Bartlett, Randall. *The Economic Foundations of Political Power*

Breton, Albert. *The Economic Theory of Representative Government*

James Buchanan and Gordon Tullock, *The Calculus of Consent*

Anthony Downs, *An Economic Theory of Democracy*

James Enelow and Melvin Hinich, *The Spatial Theory of Voting*

Allan Feldman, *Welfare Economics and Social Choice Theory*

Niskanen, William A. Jr. *Bureaucracy and Representative Government*

William H. Riker, *Liberalism Against Populism*

William Riker, *The Theory of Political Coalitions*

Gordon Tullock, *The Politics of Bureaucracy*

Kenneth Arrow, *Social Choice and Individual Values*

Duncan Black, *The Theory of Committees and Elections*

Breton. *The Economic Theory of Representative Government*

Anthony Downs, *An Economic Theory of Democracy*

James Enelow and Melvin Hinich, *The Spatial Theory of Voting*

James Buchanan, *Freedom in Constitutional Contract*

James Buchanan and Gordon Tullock, *The Calculus of Consent*

Allan Feldman, *Welfare Economics and Social Choice Theory*

Gwartney and Wagner *Public Choice and Constitutional Economics*

F.A. Hayek, *The Constitution of Liberty*

McKenzie and Tullock, *Modern Political Economy; An Introduction to Economics*

Mckenzie, *Constitutional Economics*

Dennis Mueller, *Public Choice II*

Douglass North, *Structure and Change in Economic History*

Douglass North, *The Rise of the Western World*

Mancur Olson, *The Logic of Collective Action*

Mancur Olson, *The Rise and Decline of Nations*

Peter Ordeshook, *A Political Theory Primer*

Persson and Tabelini, *Political Economics*

Simon, Herbert, *The Sciences of the Artificial*

Kenneth Shepsle and Mark Bonchek, *Analyzing Politics*

**(3) Quantitative statistical methods.**

Gujarati and Porter, *Basic Econometrics*

Greene (2007) *Econometric Analysis*  
Paul M. Kellstedt and Guy D. Whitten, *The Fundamentals of Political Science Research*  
Gary King, Robert Keohane, & Sidney Verba. 1994. *Designing Social Inquiry*  
Gary King, *Unifying Political Methodology*  
Jeffrey M. Wooldridge, *Introductory Econometrics: A Modern Approach, 4th ed.*

**(4) Qualitative statistical methods.**

Charles Ragin, *The Comparative Method: Moving Beyond Qualitative and Quantitative Strategies*  
David Collier, "The Comparative Method," in Finifter, ed., *Political Science: The State of the Discipline II*  
Gary King, Robert Keohane, and Sidney Verba, *Designing Social Inquiry*  
Van Evera, *Guide to Methodology for Students of Political Science*  
Gerardo Munck, "Canons of Research Design in Qualitative Analysis," *Studies in Comparative International Development* 33:3 (Fall 1998).  
James Mahoney, "Nominal, Ordinal, and Narrative Appraisal in Macro-Causal Analysis," *American Journal of Sociology* 103:4 (January 1999).  
Timothy McKeown, "Case Studies and the Statistical Worldview," *International Organization*, 53:1 (Winter 1999).  
James Mahoney, "Strategies of Causal Inference in Small N Analysis," *Sociological Methods and Research*  
Bennett and George, *Case Studies and Theory Development*

**(5) Experimental methods.**

Kinder, Donald Rand Thomas Palfrey (eds). *Experimental Foundations of Political Science*

**(6) Strategy, game theory, bargaining.**

Gibbons, *Game Theory*  
Martin and Osbourne, *Game Theory*  
Ken Binmore, *Fun and Games*  
Fudenberg and Tirole *Game Theory*  
John Maynard Smith, *Evolution and the Theory of Games*  
Peter Ordeshook, *A Political Theory Primer*  
Howard Raiffa and Duncan Luce, *Games and Decisions*  
Howard Raiffa, *The Art and Science of Negotiation*  
Riker and Ordeshook, *Positive Political Theory*  
William Riker, *The Theory of Political Coalitions*  
Thomas Schelling, *The Strategy of Conflict*