

PHIL/ 435 Philosophy of Science
STV TTh 11:00–12:15

Spring 2001

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Office Hours: TTh 1:00–2:00

Texts: Martin Curd and J.A. Cover. *Philosophy of Science: The Central Issues*. New York: W.W. Norton and Company, 1998.

Requirements: There will be three components in the computation of your final grade for the course:

(1) **Examinations** (60 %). At mid-term and during final examination week, there will be in-class, essay examinations, each counting for 30% of the final grade. One week before each examination, a list of study questions will be distributed to assist you in preparing for the examination.

(2) **Term Paper** (30 %). Each student will be required to submit a final term paper, of a minimum of fifteen pages, on a topic to be worked out in consultation with the instructor.

(3) **Class Participation** (10 %). The remaining ten percent of your final grade will be determined on the basis of the quality and extent of your enthusiastic participation in the class.

One-minute Papers: Every class session will end a few minutes early to permit you to write a so-called “one-minute paper,” in which you will write no more than two- or three-sentence answers to two questions: (a) What was the most important point covered in today’s class? (b) What issue or question was left most unclear in your mind at the end of today’s class? These one-minute papers will be required of every student at the end of every class session and will be collected at the end of class, but they will not be graded.

A Note on the Readings: The Curd and Cover anthology contains some very helpful material in addition to the readings themselves, most importantly, commentaries by the editors on all of the readings, a glossary, and a bibliography of additional readings on all of the subjects covered in the anthology. While these other materials are not included among the assigned readings for this course, you are encouraged to read the commentaries in conjunction with the assigned readings, since you will find these commentaries to function as valuable study guides that will enable you to get the maximum benefit out of the discussion in class.

Schedule:

Date:	Topic:	Readings:
16 Jan.	Introductory Lecture	(Note—All page number references are to the Curd and Cover anthology.)
18 Jan.	Science and Pseudoscience	Popper, CC 3–10; Kuhn, CC 11–19
23 Jan.		Lakatos, CC 20–26; Thagard, CC 27–37
25 Jan.		Ruse, CC 38–47; Laudan, CC 48–53; Ruse, CC 54–61
30 Jan.	Rationality, Objectivity, and Values in Science	Kuhn, CC 86–101; Kuhn CC 102–118

1 Feb.	Rationality, Objectivity, and Values in Science (continued)	McMullin, CC 119–138; Laudan, CC 139–169
6 Feb.		Longino, CC 170–191; Okruhlik, CC 192–208
8 Feb.	The Duhem-Quine Thesis and Underdetermination	Duhem, CC 257–279
13 Feb.		Quine, CC 280–301
15 Feb.		Gillies, CC 302–319; Laudan, CC 320–353
20 Feb.	Induction, Prediction, and Evidence	Lipton, CC 412–425; Popper, CC 426–432
22 Feb.		Salmon, CC 433–444; Hempel, CC 445–459
27 Feb.		Snyder, CC 460–480; Achinstein, CC 481–493
1 Mar.	Confirmation and Relevance: Bayesian Approaches	Salmon, CC 551–583
6 Mar.		Glymour, CC 584–606; Horwich, CC 607–624
8 Mar.	<i>Mid-term Examination</i>	
13, 15 Mar.	<i>Spring Break</i>	
20 Mar.	Models of Explanation	Carnap, CC 678–684; Hempel, CC 685–694
22 Mar.		Hempel, CC 695–705; Hempel, CC 706–719
27 Mar.		Ruben, CC 720–745; Railton, CC 746–765
29 Mar.	Laws of Nature	Ayer, CC 808–825; Dretske, CC 826–845
3 Apr.		Mellor, CC 846–864; Cartwright, CC 865–877
5 Apr.	Intertheoretic Reduction	Nagel, CC 905–921; Feyerabend, CC 922–949

10 Apr.	Intertheoretic Reduction (continued)	Nickles, CC 950–970; Kitcher, CC 971–1003
12 Apr.	Empiricism and Scientific Realism	Maxwell, CC 1052–1063; van Fraassen, CC 1064–1087; Musgrave, CC 1088–1113
17 Apr.		Laudan, CC 1114–1135; Brown, CC 1136–1152
19 Apr.		Hacking, CC 1153–1169; Resnik, CC 1169–1187
24 Apr.		Fine, CC 1186–1208; Musgrave, CC 1209–1225
26 Apr.		
1 May		
7 May	Term Papers Due (Mon., 5:00 PM)	
8 May	Final Examination (10:30 AM–12:30 PM)	