

PHIL 4385-02: Historicist Theories of Scientific Rationality

Sam Houston State University

Fall 2021 — CRN: 84476

Instructor: Dr. Thomas Brommage

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Course Description: An investigation into historicist theories of scientific rationality. Reading will include selections from Rudolf Carnap, Karl Popper, Thomas Kuhn, Imre Lakatos, Paul Feyerabend and Larry Laudan, along with some critical commentaries on the work of these figures.

Course Modality (Online): This is designed as a fully online class delivered through SHSU Online. Content delivery will be asynchronous and remote, and all assignments will be completed and graded through the Blackboard system.

Prerequisites: N/A

Textbook: N/A

Course Objectives and Learning Outcomes:

1. *Learning fundamental principles, generalizations or theories:* Throughout this course, we will discuss the various approaches to scientific methodology, and the benefits and drawbacks of each.
2. *Learning to apply course material to improve thinking, problem solving and decisions:* Throughout this course, we will be using the various theories to evaluate scientific reasoning within your chosen field of study.
3. *Learning to analyze and critically evaluate ideas, arguments, and points of view:* The papers are designed to understand and evaluate the various methods to understand and evaluate various scientific methodologies.
4. *Developing skill in expressing oneself orally or in writing:* The assessments are designed to improve your writing and thinking through the basic terms and distinctions of forms of scientific reasoning, as well as the various forms of scientific explanation.

Writing Enhanced: This is a “W” course, which means that at least 50 percent of your course grade will derive from writing activities designed to help you master course objectives. Writing in this course is one of the tools your instructor will use to help you learn course material. Some writing activities will require you to draft and revise your work, with or without instructor feedback. Others may not receive a grade but are designed to assist you in critical reflection of the course material. You should approach writing in this course as a tool to use as part of your learning as well as a tool your instructor will use to assess your level of learning.

Reading List

- Carnap, Rudolf. 1936. "Testability and Meaning (Part 1)." *Philosophy of Science* 3 (4): pp. 420–71. <https://doi.org/10.1086/286432>.
- . 1937. "Testability and Meaning (Part 2)." *Philosophy of Science* 4 (4): pp. 1–40. <https://doi.org/10.1086/286432>.
- Feyerabend, Paul. 1970. "Consolations for the Specialist." In *Criticism and the Growth of Knowledge*, edited by Imre Lakatos and Alan Musgrave, pp. 197–230. <https://doi.org/10.1017/CBO9781139171434.010>.
- . 1975. *Against Method*. London: New Left Books.
- Kuhn, Thomas S. 1962. *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press.
- . 1970. "Reflections on my Critics." In *Criticism and the Growth of Knowledge*, edited by Imre Lakatos and Alan Musgrave, pp. 231–278. <https://doi.org/10.1017/CBO9781139171434.011>.
- Lakatos, Imre. 1970. "Falsification and the Methodology of Scientific Research Programmes." In *Criticism and the Growth of Knowledge*, edited by Imre Lakatos and Alan Musgrave, pp. 91–196. <https://doi.org/10.1017/CBO9781139171434.009>.
- Lakatos, Imre, Paul Feyerabend, and Matteo Motterlini. 1999. *For and Against Method: Including Lakatos's Lectures on Scientific Method and the Lakatos-Feyerabend Correspondence*. Chicago: University of Chicago Press.
- Laudan, Larry. 1977. *Progress and its Problems: Toward a Theory of Scientific Growth*. Berkeley, CA: University of California Press.
- Newton-Smith, W. H. 1981. *The Rationality of Science*. New York: Routledge.
- Popper, Karl. 1934. *The Logic of Scientific Discovery*. New York: Routledge.
- . 1970. "Normal Science and its Dangers." In *Criticism and the Growth of Knowledge*, edited by Imre Lakatos and Alan Musgrave, pp. 51–58. <https://doi.org/10.1017/CBO9781139171434.007>.

Important Dates:

First Day of Class	August 16th
Add/Drop Deadline	August 31st
Labor Day Holiday (no class)	September 6th
Q-Drop Deadline	October 20th
Thanksgiving Holiday (no class)	November 24th-26th
Last Day of Class	December 2nd
Study Day	December 2nd
Final Paper Due	December 3rd

Evaluation:

The following weighting will be used to calculate your course grade:

Participation in Weekly Meetings	50%
Research Paper (3,000-3,500 words)	50%

Your rounded average of these assignments will determine your grade, based on the following scale:

A	100 - 89.5
B	89.4 - 79.5
C	79.4 - 69.5
D	69.4 - 59.5
F	59.4 - 0

Academic Dishonesty: Students are expected to maintain honesty and integrity in the academic experiences both in and out of the classroom. Please be aware that plagiarized work and any form of academic dishonesty will result in an “F” on the assignment. [SHSU Academic Policy Statement 810213](#) outlines the definition of academic honesty and the related disciplinary procedures.

You should also familiarize yourself with [Academic Policy Statement 900823](#), which outlines the procedures for students to file an academic grievance should you wish to appeal your grade for reasons other than academic dishonesty. Please read through these policies carefully.

Course Evaluations: In accordance with University policy every student will have an opportunity at a specified date and time near the end of the semester to complete a course evaluation form from the IDEA course evaluation system.

For University policies on Student Absences on Religious Holy Days, Students with Disabilities, and Visitors in the Classroom you may view to the official statements on the SHSU Website, <http://www.shsu.edu/syllabus/>

Expectations, Suggestions and Mandates for an efficient class:

1. Especially true in philosophy more than most other subjects, diligence is important. Some of the reading will be difficult since we are looking at some of the most profound ideas in the history of the world. The difficulty of the subject is indirectly proportional to the amount of work put into the course.
2. Expect to have up to several hours a week of reading and practice in order to earn an “A” for the course. Additionally, for these reasons, attendance is of vital importance. *If you do not regularly log in or keep up with the reading and exercises, do not expect to pass this class!*
3. Please come to class prepared (i.e., any reading assigned read, any questions concerning exercises or lectures prepared, etc.)

4. Please feel free to make mistakes. We all will from time to time—including your omniscient instructor.
5. Please feel free to make an appointment to discuss the material you do not understand. Waiting until the last moment in the semester to catch up is not advisable. I am excellent at fixing small problems, but horrendous at fixing large ones. The only difference between small and large problems is time.
6. Have fun! The material is only as dry as you make it out to be. Sharpening one's mind can be an exhilarating process.