

ANKARA UNIVERSITY
Department of Philosophy

HISTORY OF SCIENTIFIC THOUGHT

Lecturer: Ömer Faik ANLI, Ph.D., Associate Professor

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Course Schedule: Monday, 14:45-16:15

Office Hours: Monday, 16:30 – 17:00 by appointment

Class room location: 426

Course Description and Objectives

The Century of Enlightenment and the Scientific Revolution is a period in which new disciplines emerged and major changes were observed in philosophy and science. Accordingly, new disciplines have emerged as disciplines that do not conform to the 'science' defined in the historical process.

For example, new social science disciplines such as sociology, history and psychology do not fully conform to the definition of science as well as the traditional definition of philosophy. In addition, these disciplines do not fully conform to the definitions put forward by the data produced from the histories of natural sciences called solid science. In this context, it is controversial whether these disciplines are science and how to make a definition that will cover both these disciplines and be in line with 'real science activity'.

Thus, the first problem imposing itself from this century onwards for science studies is the need to redefine science. The second problem is based on one question: Why does progress only belong to science? The second problem arising from this point has opened a second field of research that parallel to the first one. The first group argued that the correct solution of these problems was to examine the elite products of science that were put forward in the historical process, while the second group argued that the way to answer these questions correctly was through the examination of the concepts, methods and the nature of knowledge produced by science. The History of Scientific Thought is a common area of these two approaches. The aim of this course is to enable students to participate in the discussions in this field by examining approaches about scientific thinking.

Lesson / Week 1	Introduction What makes science so special? What is the 'scientific method' that leads to reliable results? What is the basis of science and the authority of the scientist?
Lesson / Week 2	Positivism
Lesson / Week 3	Positivist History of Science
Lesson / Week 4	Epistemological Structure of Positivism
Lesson / Week 5	Strengths and Weaknesses of the Theory
Lesson / Week 6	Transition to Falsificationism
Lesson / Week 8	Introduction to Falsificationism
Lesson / Week 9	Scientific Progress Model of Falsificationism
Lesson / Week 10	Strong Criticism Against Popper
Lesson / Week 11	The Structure of Scientific Revolutions
Lesson / Week 12	The Structure of Scientific Revolutions (2)
Lesson / Week 13	Paul Karl Feyerabend (Epistemological Anarchism)
Lesson / Week 14	Discussion: Theory of Science and A Concrete Case

Recommended Reading

Philosophy of Science -Key Thinkers-, James Robert Brown (ed.), Continuum International Publishing Group.

Student Responsibilities:

You are expected to complete the assigned readings before class. The class will require your active participation.

Course Evaluation Criteria:

Students are expected to attend at least 70% of the course during the semester.

Calculation of the total grade of the course:

Midterm Exam: 30%

Final Exam: 80%