

Introduction to Philosophy of Science

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Office Hours: Wednesdays 2:00 - 3:00
and by appointment

Course Description

Scic q 1 0 0 1 108 [philosophical look at science starting with the fundamental question, what is science?]

What is the difference between science and pseudo science? Are scientific observations ever purely objective? What counts as a scientific explanation of a phenomenon? What does it take to confirm a theory? Does science succeed by giving us a true account of how the world really is or is it just a collection of useful ways of thinking about the world? What is a natural law; what is evidence; how are data and theories related? How does science change over time? What counts as scientific progress? How do the values and politics of scientists and the society at large influence scientific practice and results? What's the relationship between religion and science?

Throughout the course we will practice applying the accounts and critiques of science we're encountering to cases from the history of science. The aim will be both to develop a better understanding of scientific work and to evaluate the theories we have been exploring.

Texts

James Ladyman. Understanding Philosophy of Science. Routledge. 2002.
[UPS on the course schedule]

All additional readings, course materials, information and updates will be available on the Coursespaces page.

To access Coursespaces, go to coursespaces.uvic.ca and log in with your regular network ID.

Course Work

Group Case Study I	10%
Exam One	25%
Group Case Study II	10%
Group Case Study III	15%
Exam Two	15%
Take Home Final Exam	25%

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Course Schedule

January 4, 6	UPS Introduction Cox and Forshaw "Quantum Physics is not Difficult"
January 10, 11, 13	Einstein "On the Method of Theoretical Physics" UPS Chapter 1: Induction and Inductivism
January 17, 18	UPS Chapter 2: The Problem of Induction and Other Problems with Inductivism
January 20, 24, 25	UPS Chapter 3: Falsificationism