## The Philosophy of Science

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In this course, we will tackle big questions concerning the nature of reality, the limits of human cognition, morality, and the meaning of life. In order to help our attempts to answer these questions, we will discuss important scientific discoveries and facts that will provide a deeper perspective into these issues.

## Given

Topics (not necessarily in this order):

- 1. **Logic**: syllogisms, negation, contrapositive, induction, deduction
- 2. **Limits of science**: provability, Cartesian and Humean criticisms
- 3. **God**: defining "God," ontological argument, cosmological argument, teleological argument, the problem of evil, Deism, pantheism, agnosticism
- 4. **Ethics**: origins of altruism, naturalistic fallacy, origins of evil, utilitarianism, liberalism, libertarianism, Kantian metaethics, bioethics
- 5. **Political philosophy**: law, Hobbe's Leviathan, Marxism, capitalism, democracy, economics
- 6. **Nature of reality**: relativity, quantum mechanics, string theory, determinism, indeterminism, the Big Bang, black holes, multiverse theory
- 7. **Human mind**: behaviorism, evolutionary psychology, emotions, cognition, sexuality, rationality, irrationality

## References:

- 1. *Meditations on First Philosophy* by Rene Descartes
- 2. An Enquiry Concerning Human Understanding by David Hume
- 3. *Utilitarianism* by John Stuart Mill
- 4. *The Elegant Universe* by Brian Greene
- 5. *The Selfish Gene* by Richard Dawkins
- 6. *A Brief History of Time* by Stephen Hawking
- 7. *The Worldly Philosophers* by Robert L. Heilbroner
- 8. *The Human Mind* by Steven Pinker
- 9. *The Evolution of Desire* by David Buss
- 10. **Blink** by Malcolm Gladwell