



**PHILOSOPHY 160-01**

## **Philosophy of Science**

MW 1:30 – 2:45 PM in BBC 222

Instructor: Harlan McGhan

**GE Area R**

**In the 21<sup>st</sup> Century, it is far too late to give up science,  
but it is never too late to understand it better.**

Modern science, beginning in the 16<sup>th</sup> Century, has brought us into a new geological epoch, the *Anthropocene*. Empowered by science and the technologies it enables, the Industrial Revolution of the 19<sup>th</sup> century not only has transformed human life beyond all recognition, but also has made human activity the dominant force reshaping the earth's surface and its surrounding environment.

**The philosophy of science seeks to answer the most basic questions about science: What are the foundations of science? What is the world as pictured by science? What is the role of science in society?** For example: How do we know if a scientific hypothesis or theory is true? What is the difference between science and pseudoscience? What does science tell us about reality (if anything)? Does science enforce values or does it destroy them? Can science coexist with faith?

**PHIL 160: Philosophy of Science is a 15-week course exploring the most important questions about the most important activity ever undertaken by humans.**

### **Weeks 1 - 5**

#### **The Lessons of History**

A survey of the origins and development of science, highlighting significant changes in understanding the nature of the material world, the nature of life, and human nature itself wrought by science.

### **Weeks 6 - 10**

#### **The Lessons of Logic**

A survey of the development of the Philosophy of Science in the 20<sup>th</sup> Century, from attempts to create a logical reconstruction of scientific truth, explanation, and prediction, to the claim that logic must be abandoned as useless.

### **Weeks 11 - 15**

#### **Contemporary Issues**

A survey of issues attracting attention as the most significant for the 21<sup>st</sup> Century: e.g., the crises in physics. Does anything exist (Is it all just a simulation)? Or does everything exist everywhere all at once?