

**THE UNIVERSITY OF WESTERN ONTARIO
DEPARTMENT OF PHILOSOPHY
Undergraduate Course Outline 2016-2017**

**Philosophy 1030A:
Understanding Science: How Science Relates to the Natural and Social World**

Fall Term 2016

Mon, Wed 11:30 12:30

TH 3102

Instructor: Wayne C. Myrvold

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Office: Stevenson Hall 4143

Office Hours: MW 1:30

Topics

Module I. (3 weeks) *Development of the modern view of the cosmos.* In this module, we will trace the development of conceptions of the *cosmos* from ancient times to the present, with an emphasis on understanding how and why scientists came to see the world as they do now. This module will also explore the complex relations between scientific and religious worldviews.

Module II. (3 weeks) *Scientific inference and methodology.* This module concerns scientific reasoning and the bearing of evidence on scientific claims. The question to be asked is: When you hear conflicting claims (say, about the health benefits of something), how can you decide what you should believe? This module will help you develop some basic strategies for answering questions of that sort. We will also discuss the importance of replication in science, and why some people are saying that some branches of science are undergoing a “replicability crisis.” As an exercise, students (in groups) will design and carry out a simple experiment, and report the results.

Module III. (2 weeks) *Science, PR, and the media.* A peek behind the scenes of how results from the laboratory become stories in the media. This will include discussion of the role of PR agencies in shaping what gets reported. We will look at a particularly well-