**DPHY 2690 Science and Ethics**

**Room 219, Tuesdays, 6-9 PM**

**Instructor: Dr. Hugh Hunter**

**Meeting Outside of Class: By Appointment**

**Email:** [h.hunteronline@gmail.com](mailto:h.hunteronline@gmail.com)

**Required Texts**

1. Amazon E-Book: [*Introductory Readings in the Philosophy of Science*](http://www.amazon.ca/Introductory-Readings-Philosophy-Science-David/dp/B002GYWQF0/ref=sr_1_1_twi_2?ie=UTF8&qid=1420512733&sr=8-1&keywords=philosophy+of+science+klemke)Ed.s E. D. Klemke, Robert Hollinger, David Wyss Rudge and A. David Kline [T]

2. Readings found online. [O]

3. Readings posted on the course website. [W]

**Course Website**

[www.jhughunter.com](http://www.jhughunter.com)

**Course Work and Grading**

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| **Assignment** | **Due** | **Value** |
| Short Essay 1 | By email, 11:59 PM, Jan 31 | 20% |
| Mid-Term Examination | In class, Feb 10, 6:30 | 20% |
| Short Essay 2 | By email, 11:59 PM, Mar 28 | 20% |
| Final Examination (Oral) | April 18, 6 PM | 30% |
| Participation | Ongoing | 10% |
| Optional Short Essay 3 | By email, 11:59 PM, Apr 11 | Replaces the Short Essay 1, 2 or Mid-Term, whichever is lowest grade. |

1. Late work will lose one letter grade increment per day. For example, a piece of work one day late that would ordinarily receive a B would receive a B-. Missing an exam will result in a zero.

2. I take plagiarism seriously, and so does the [Dominican University College](http://www.dominicanu.ca/sites/default/files/pdfs/Academic_Integrity_Policy-2014-04-15.pdf). Please familiarize yourself with this policy to ensure that you do not plagiarize by mistake.

3. If you require special assistance, or if you would like to ask for an extension, please speak to me before or after class.

4. Short Essay 3 is optional. If you wish to submit it, you may, and I will count it instead of your lowest grade on the Mid-Term or the other two essays. There will be no other extra credit assignments for this course.

**Course Schedule**

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| **Date** | **Topic** | **Due** | **Reading** |
| Jan 3 | The Scientific Revolution |  | None |
| Jan 10 | Induction |  | * *Principia Mathematica*, Sec 3,Scholium ([complete work](https://archive.org/details/newtonspmathema00newtrich)), Sir Isaac Newton [O] * Enquiry Concerning Human Understanding, Sec 4 ([complete work](http://www.davidhume.org/texts/ehu.html)), David Hume [O] |
| Jan 17 | What is Science? Falsificationism |  | * “What is Science?”, John Ziman [T] * “Conjectures and Refutations”, Sir Karl Popper [T] |
| Jan 24 | What is Science? Paradigms |  | * “Objectivity, Value Judgment, and Theory Choice”, Thomas Kuhn [T] * [“On Simple Theories of a Complex World”](http://sveinbjorn.org/simple_theories_of_a_complex_world), W.V.O. Quine [O] |
| Jan 31 | What is Science?  Feyerabend | Essay 1 Due | * “How to Defend Society Against Science”, Paul Feyerabend [T] * [“Karl Popper and the Jazz Age”](http://www.unz.org/Pub/Encounter-1985jun-00065?View=PDF), David Stove [O] |
| Feb 7 | What is Science About? |  | * “Science and the Physical World”, W. T. Stace [T] * “The Ontological Status of Theoretical Entities”, Grover Maxwell [T] |
| Feb 14 | Hard and Soft Sciences |  | * “If Economics isn’t Science, What is it?”, Alexander Rosenberg [T] * “Are the Social Sciences Really Inferior?”, Fritz Machlup [T] |
| Feb 21 | Reading Week | | |
| Feb 28 | 6:00-6:30 Review (Optional)  6:30-8:00 Mid Term Exam | | |
| Mar 7 | Is Science Connected to Ethics? |  | * “Science and Human Values”, Carl Hempel [T] * “The Scientist *qua* Scientist Makes Value Judgments”, Richard Rudner [T] |
| Mar 14 | Science and Human Beings 1 |  | * “Interpretation and the Sciences of Man”, Charles Taylor [T] * [“Moral Philosophy Meets Social Psychology”](https://www.princeton.edu/~harman/Papers/Virtue.html), Gilbert Harman [O]   ***Optional Extra Materials***   * [Milgram Obedience Experiments](https://www.youtube.com/watch?v=yr5cjyokVUs) [O] * [University of Toronto Ethics Research Guidelines: Participant Observation](http://www.research.utoronto.ca/wp-content/uploads/2012/10/Participant-Observation-Guidelines-2005.pdf) [O] * [University of Toronto Ethics Research Guidelines: Deception and Debriefing](http://www.research.utoronto.ca/wp-content/uploads/2012/10/Deception_and_Debriefing_Guidelines.pdf) [O] |
| Mar 21 | Science and Human Beings 2 |  | * [“Ethical Issues in Human Enhancement”](http://www.nickbostrom.com/ethics/human-enhancement.pdf), Nick Bostrom & Rebecca Roache [O] * [“Ageless Bodies, Happy Souls: Biotechnology and the Pursuit of Perfection”](Ageless%20Bodies,%20Happy%20Souls), Leon Kass [O] |
| Mar 28 | The Status of Animals | Short Essay 2 Due | [“Conversation between Peter Singer and Richard Posner”](http://www.utilitarian.net/singer/interviews-debates/200106--.htm) [O] |
| Apr 4 | Environmental Ethics |  | * [“Thinking Like a Mountain”](http://www.eco-action.org/dt/thinking.html) Aldo Leopold [O] * [“The Shallow and the Deep, Long-Range [O]](https://iseethics.files.wordpress.com/2013/02/naess-arne-the-shallow-and-the-deep-long-range-ecology-movement.pdf) * [Ecology Movement: A Summary”](https://iseethics.files.wordpress.com/2013/02/naess-arne-the-shallow-and-the-deep-long-range-ecology-movement.pdf), Arne Naess [O] * [“Duties Concerning Islands”](https://iseethics.files.wordpress.com/2013/02/midgley-mary-duties-concerning-islands.pdf), Mary Migely [O] * [“Conservatism and the Environment”](http://www.rogerscruton.com/articles/281-conservatism-and-the-environment), Sir Roger Scruton [O] |
| Apr 11 | TBA/Review | Optional Short Essay 3 Due | TBD |
| Apr 18 | Final Exam | | |