

## Oran Magal

**Lectures:** Wednesdays 13:35-16:00, Leacock 927

**Office hours:** Wednesdays & Fridays 12:30–13:30, Leacock 941

**Course overview:**

To the extent that there is today a ‘received view’ about the nature and content of scientific concepts, it is that some version of *holism* is the right idea. In the first part of the seminar, we will discuss some of the milestones in the development of this view, connecting it with Kuhn’s deeply influential notion of scientific ‘paradigms’. In the second part, we will examine (portions of) two of the most interesting books in philosophy of science in the past several years: Michael Friedman’s *Dynamics of Reason* (CSLI, 2001) and Mark Wilson’s *Wandering Significance* (OUP, 2006). Both offer critiques of the ‘received view’ based on considerations drawn from examining the history of physics (Friedman) and points of contact between physical theory and application (Wilson), from which much may be learned about the nature of scientific concepts quite generally.

**Topics & main texts:**

1. Poincaré on implicit definitions: selections from *Science and Method*
2. Hilbert on axiomatic definitions: selections from the Frege–Hilbert correspondence
3. Carnap’s conventionalism: selections from *Logical Syntax of Language* + “Empiricism, Semantics, and Ontology”
4. Quine’s critique of Carnap: “Truth by Convention” + “Carnap and Logical Truth”
5. Quine’s holism, the ‘Duhem-Quine Thesis’: “Two Dogmas of Empiricism” + selections from Quine’s other writings
6. Friedman’s ‘relativized a priori’: *Dynamics of Reason*
7. Wilson’s critique of the ‘classical picture of concepts’: selections from *Wandering Significance*
8. Optional/time permitting – Brandom on normativity and conventions: selections from *Making It Explicit*

**Required background:**

No special background in science or mathematics is required. Discussion will be at a non-technical level. Students are, however, expected to be familiar with 20th c. analytic philosophy of science, and to a lesser extent philosophy of language, at least at the level of an introductory course, or to be willing to undertake equivalent preparation prior to this course.

**Required reading material:**

Students will need to purchase *Dynamics of Reason*; all other required readings will be made available through the course website.

**Methods of evaluation:**

The final mark for the class is composed of the following: attendance and participation (5%), weekly reading assignments (20%), presentation in class (20%), outline of final paper (5%), final paper (50%). Details in appendix, below.

**Policy for Late Work:**

Extensions to deadlines set will be granted only in *exceptional* circumstances, usually only for medical reasons and with a medical note or other, similar emergencies, appropriately documented. Late work will be penalized at the rate of 3 percentage points per day overdue.

*McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see [www.mcgill.ca/integrity](http://www.mcgill.ca/integrity)).*

### **Methods of evaluation in detail:**

1. General logistical note: all assignments will be distributed through the course website, and are to be submitted electronically through it as well. Please upload files only in one of the following file formats: PDF, DOC, DOCX, RTF. (Please do not submit *Pages* or *Open Office* format files.)
2. Attendance (5%): As a seminar, this course is based on discussion in class. For this reason, attendance and active participation are required. Students may miss one class without explanation, further absence will be excused only due to medical or similarly serious reasons.
3. Weekly reading assignments (20%): Each week you will be asked to submit a brief reply (a few sentences at most) to one or more of the readings assigned for that week, based on a question or prompt that will be provided. These will be due the afternoon prior to each class, and will be graded as follows: 2/2 for excellent work, 1.5/2 for adequate work, 0/2 for inadequate or missing work. 11 assignments will be given, out of which 10 are to be submitted (you may skip one week of your choice).
4. Presentations (20%): each student will be expected to give a presentation to the class, 20 to 30 minutes long, and to be ready to respond to questions and facilitate a discussion for an additional 15 minutes thereafter.
5. Outline (5%) + Final paper (50%): the final essay should be approximately 3000 words, on a topic of your choice, subject to instructor's approval. Students are expected to develop a topic and an essay question (with the instructor's assistance). A brief outline of the topic, approved in advance by the instructor, must be submitted at least one day before the final class. During our final class each student will present their topic, to be followed by a brief discussion.