

**PHIL 490 A02/Phil 500 A02:
Conceptualizing & Categorizing Phenomena in Science**

Instructor: Eric Hochstein

CRN: 22303/ 22306

Time: Monday/Thursday 2:30-3:50

Place: Due to COVID 19, this course will be entirely online. It will be a **synchronous** course, meaning that students are expected to attend all online lectures through Zoom.

Zoom Link:

<https://uvic.zoom.us/j/88526203885?pwd=dzdJeWluSTdYYIRuSU9zWmo5dW5qUT09>

Office Hours: Fridays 1:00-2:20 (by appointment)

Email: ehochstein@uvic.ca

Description: It's tempting to think of the discovery process in science as rather straightforward: we encounter some new phenomenon, observe its behaviours, and then develop theories which can explain it. But this sort of story leaves out the important fact that **the correct way to interpret and conceptualize phenomena is not given to us by nature**. In other words, *we* must interpret what we think the phenomenon is in order to study it. Scientists are required to interpret, conceptualize, categorize the phenomenon, which in turn determines how they study it. In many cases, our initial interpretation of the phenomenon is so confused that we must radically reinterpret or reconceptualize what we *thought* we were studying, and think about it as an entirely distinct kind of phenomenon altogether, or as a collection of distinct unrelated phenomena. This course will explore questions such as: how can we tell if we are correctly interpreting or conceptualizing what a phenomenon is in science? How do we know when we need to radically reinterpret our account of phenomena and replace it with something else entirely? How do different interpretations affect the way we study phenomena and build theories? What sorts of factors influence our interpretation and categorization of phenomena?

Structure: The course comprises 2 seminars per week, the contents of which will be based on the assigned external sources. The course will proceed primarily through discussions and presentations.

Evaluation: The course will be graded as follows:

- **FOR GRAD STUDENTS:** 1 in-class presentation worth 15% (this will involve a very brief summary and explanation of a few key points of the reading for that day, and leading class discussion).
- **FOR UNDERGRAD STUDENTS:** 1 early draft of final paper worth 15% (the final paper will be graded on how you respond to comments and suggested revisions on this draft).
- 2 papers, one worth 35% the second 40%
- 10% Class participation and attendance. This includes a brief (one page max) summary of each course reading, **due in class** the day that reading is being covered. This also requires that students engage in class discussion regularly (as this is a seminar class)

Policy on assignments, tests, and term papers: The term papers are due in class, **in hard copy**, on the announced deadline. Late papers will receive a deduction of 5% per day until handed in. Summaries that are not handed in during class time will not be accepted.

Important to Note: It is expected that students will prepare for and attend class regularly. Students are encouraged to consult the instructor with any problems or concerns about the course early in the semester.

Grading System:

Percentages	Letter Grade	Grade Point
90 – 100	A+	9
85 – 89	A	8
80 – 84	A-	7

An A+, A, or A- is earned by work which is technically **superior**, shows mastery of the subject matter, and in the case of an A+ offers original insight and/or goes beyond course expectations. Normally achieved by a minority of students

77 – 79	B+	6
73 – 76	B	5
70 – 72	B-	4

A B+, B, or B- is earned by work that indicates a **good** comprehension of the course material, a good command of the skills needed to work with the course material, and the student's full engagement with the course requirements and activities. A B represents a more complex understanding and/or application of the course material. Normally achieved by the largest number of students.

65 – 69	C+	3
60 – 64	C	2

A C+ or C is earned by work that indicates an **adequate** comprehension of the course material and the skills needed to work with the course material and that indicates the student has met the basic requirements for completing assigned work and/or participating in class activities

50 – 59	D	1
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A D is earned by work that indicates **minimal** command of the course materials and/or minimal participation in class activities that is worthy of course credit toward the degree.

0 – 49	F	0
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F is earned by work, which after the completion of course requirements, is **inadequate** and unworthy of course credit towards the degree.

Interpretation of these grade definitions is up to the discretion of the instructor. If you receive a grade during the course that you believe is unfair, please begin by discussing the matter with the

instructor (or TA) in a respectful, open-minded manner. Rest assured that if you still believe the grade you received is unfair you can appeal the matter to the chair of the department.

For additional information regarding grades, please see pp. 51-53 of the most recent (September 2018) edition of the Uvic Undergraduate Calendar.

All evaluations of tests and assignments will be calculated according to percentage scores. Letter grades and grade point scores are listed purely for reference.

Final examinations are the property of Uvic and are not returned. They are available for viewing at the Records Office according to Uvic procedures and regulations (pp. 49-51 of the calendar).

Uvic is committed to providing a safe, supportive learning environment for all members. Further information regarding Uvic policies on human rights, equity, discrimination and harassment are located in the Uvic calendar (p. 15), but if you have any particular concerns in our course please do not hesitate to contact me.

Tentative Schedule of Readings:

Week 1 (Jan 11 & 14): Introduction

No Readings

Week 2 (Jan 18 & 21): Theory-ladenness of Observation

Chris Leeman Presenting

Readings:

- Kuhn, T., “Scientific Revolutions as Changes of World View”

Week 3 (Jan 25, 28): Data & Phenomena

Readings:

- Bogen & Woodward (1988) “Saving the Phenomena”

Week 4 (Feb 1 & 4): Reconceptualization

John Miller is Presenting

Readings:

- Chang (2011) “The Persistence of Epistemic Objects Through Scientific Change”

Week 5 (Feb 8 & 11): Literal/Figurative Uses of Psychological Predicates

First Term Paper Due (February 11th)

Readings:

- Figdor (2014) “On the Proper Domain of Psychological Predicates”

Week 6 (Feb 15 & 18): Reading Week

First Term Paper Extended Deadline (February 18th)

No Classes

Week 7 (Feb 22 & 25): Categorizing “Memory”

Morgan Gray Presenting

Readings:

- Schacter, Addis & Buckner, “Remembering the past to imagine the future: the prospective brain”
- Craver, C., “Remembering: Epistemic and Empirical”

Week 8 (March 1 & 4): Categorizing “Theory of Mind”

Regan Presenting

Readings:

- Ravens' Fear of Unseen Snoopers Hints They Have Theory of Mind
- Penn & Povinelli (2007). On the lack of evidence that non-human animals possess anything remotely resembling a ‘theory of mind’

Week 9 (March 8 & 11): Categorizing “Emotion”

Readings:

- Barrett, L. (2017) “The Myth of Universal Emotions”. *How Emotions Are Made*.

Week 10 (March 15 & 18): Categorizing “Cognition”

For Undergraduate Students: Draft of Second Paper is due March 22nd

Readings:

- Akagi, M., “Rethinking the Problem of Cognition”

Week 11 (March 22 & 25): Scientific Pluralism

Readings:

- Kellert, H., Longino, H. & Waters C. K. (2006). “Introduction: The Pluralist Stance.” *Scientific Pluralism*.

Week 12 (March 29 & April 1): Conceptual Change and Education

Readings:

- Nersessian, “Conceptual Change in Science and in Science Education”

Week 13 (April 5): Categorizing “Humour”

Second Term Paper Due April 5th

Readings:

- Hochstein, E. (under review). When No Laughing Matter is No Laughing Matter: The Challenges in Developing a Cognitive Theory of Humour.

Note on Avoidance of Academic Offenses:

All students registered in the course are expected to know what constitutes an academic offence, to avoid committing academic offenses, and to take responsibility for their academic actions. When the commission of an offense is established, it will be acknowledged by disciplinary penalties. If you need help in learning how to avoid academic offenses such as plagiarism, cheating, and double submission, or if you need clarification of aspects of the discipline policy, ask your course instructor for guidance. You can find the university’s Policy on Academic Integrity here:

<http://web.uvic.ca/calendar2017-09/undergrad/info/regulations/academic-integrity.html>

If you are seeking editing help, please note that the university has recently adopted a strict view about seeking the help of others for editing. They say (this can be found in the link above):

An editor is an individual or service, other than the instructor or supervisory committee, who manipulates, revises, corrects or alters a student's written or non-written work.

The use of an editor, whether paid or unpaid, is prohibited unless the instructor grants explicit written authorization. The instructor should specify the extent of editing that is being authorized. Review by fellow students and tutoring that do not include editing are normally permitted.

Note for students with disabilities:

The Centre for Accessible Learning (<http://www.uvic.ca/services/rcsd/>) is a fantastic resource that collaborates with all academic departments to help arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with them at the beginning of each academic term.