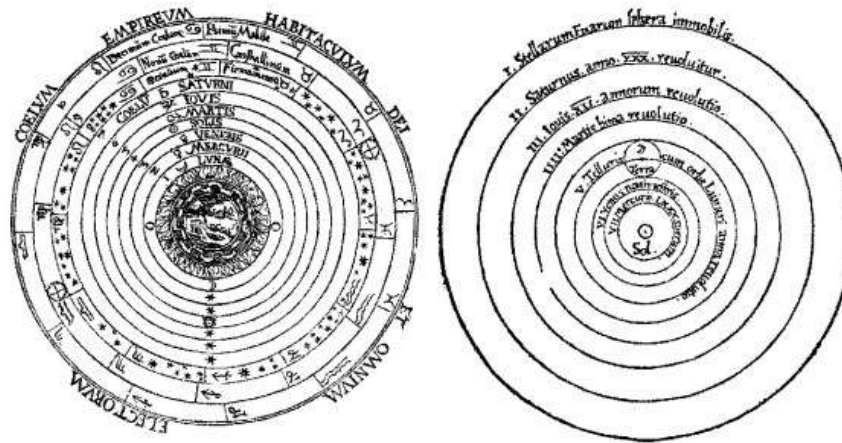


PHIL 2301 A
Introduction to the Philosophy of Science



Fall 2026
Course Outline

I. Admin

Instructor: Gabriele Contessa (he/him), Associate Professor, Department of Philosophy

Instructor's Office Hours: Wednesday, 1:35pm–2:25pm or by appointment

Instructor's E-Mail: gabriele_contessa@carleton.ca

Zoom Links for Classes and Office Hours: See Admin section in Brightspace

Wooclap Link: See Admin section in Brightspace

II. Description

Philosophical issues arising out of the attempt to understand the world scientifically. Topics may include: scientific methodology, revolution, observation, explanation, causation, induction, reduction, the difference between natural and social scientific understanding, realism, instrumentalism, constructivism.

III. Prerequisites/Preclusions

A course in philosophy or second-year standing.

IV. Texts

Students are not required to purchase any textbooks or materials for this course. All readings for this course will be accessible through Brightspace.

V. Evaluation

- Attendance & Participation (20%)
- Quiz 1 (15%)
- Midterm Exam (25%)
- Quiz 2 (15%)
- Final Exam (25%)

As a matter of policy (as well as transparency and fairness to all students), these evaluation criteria will be applied to all students under all circumstances. This means that no requests for additional extra credit or for shifting grades will be entertained under any circumstances. If circumstances beyond your control are preventing you from succeeding in this course under the evaluation criteria outlined here, please contact the instructor as soon as possible.

Standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by the instructor may be subject to revision. No grades are final until they have been approved by the Dean.

VI. Course Policies

Attendance and Participation (A&P). This is a synchronous course, and regular attendance and participation are central to its design. Attendance and participation in this course will be assessed primarily through participation in Wooclap polls. Polls can be run at any time

during class, and any class may include multiple polls. Half of your A&P grade will be determined by how many polls you have **participated** in during the term. The other half of the A&P grade will be determined by how many graded polls (which are marked with a '[C]') you have **answered correctly**. All polls are timed. You will have 1 minute to answer graded polls and 30 seconds for ungraded polls. Woodclap will not accept responses after that time. **The lowest 20% of poll results are automatically dropped** when calculating the final grade. This includes any polls missed due to occasional absences, technical issues, etc. Additional accommodations are considered only in exceptional circumstances and normally require documentation.

To log in to Woodclap, click on the link in the Admin section of Brightspace, choose the SSO sign-in option, and enter your MyCarletonOne credentials when prompted. Please do not forget to log in before the start of each class.

Exams and Quizzes. All Exams and Quizzes will be held online on Brightspace. The Final Exam will be held during the Exam Period. The two Quizzes and the Midterm Exam will be held during class time. All dates are tentative, and they are subject to change.

Exams and Quizzes will include a mix of multiple-choice questions and open-ended questions. If you would like to receive feedback on your answers to open-ended questions, please attend the instructor's office hours (or make an appointment).

Some Quiz questions and some Exam questions might require you to show your work. You will have to do so by submitting photos of all of your work in the Assignment section in Brightspace. All photos need to be submitted before the end of the exam/quiz time. Students who fail to show their work for a question that requires it will receive 0% on that question. Students whose work does not support their answer or includes mistakes will receive a reduced credit on that question.

If circumstances beyond your control prevent you from taking an exam or quiz, please contact the instructor as soon as possible by e-mail.

Generative Artificial Intelligence. You may not use generative AI tools to produce any part of the graded work for this course. This applies to all graded work, in whatever form it is submitted—including short in-class work such as poll responses.

Academic Integrity. You are responsible for ensuring that you understand the nature of academic offenses (such as plagiarism and unauthorized collaboration), as defined in the [Undergraduate Calendar](#), and for avoiding both committing them and aiding or abetting academic offenses perpetrated by other students. Please be aware that the instructor is required to report all suspected academic offenses to the Office of the Dean.

Copyright. Carleton University is committed to compliance in all copyright matters. Noncompliance is a violation of the Canadian Copyright Act. In addition to any actions that might be taken by any copyright owner or its licensing agent, the University will take steps against any breach of this policy. For more information, please see Carleton's Fair Dealing Policy and the library's copyright website: www.library.carleton.ca/copyright.

VII. Course Calendar

<i>Unit</i>	<i>Readings</i>	<i>Dates</i>
Unit 0: Logic	N/A	Sep 9–16

Unit 1: Inductivism	David Hume, <i>An Enquiry Concerning Human Understanding</i> (Section IV: 'Sceptical Doubts Concerning the Operations of the Understanding')	Sep 18
	Nelson Goodman, 'The New Riddle of Induction' (skip §3!)	Sep 23–25
	<i>Quiz 1</i>	Sep 30
Unit 2: Deductivism	Karl Popper, 'Conjectural Knowledge' Karl Popper, 'Science: Conjectures and Refutations'	Oct 2–7
	W. V. Quine, 'Two Dogmas of Empiricism' (§6 only!)	Oct 9–14
Unit 3: Pessimism	Thomas Kuhn, 'The Resolution of Revolutions'	Oct 16–21
	<i>Midterm Exam</i>	Oct 23
Unit 4: Probabilism	Michael Strevens, 'Notes on Bayesian Confirmation Theory', §§1–6.	Nov 4
	Michael Strevens, 'Notes on Bayesian Confirmation Theory', §§7–11.	Nov 6–13
Unit 5: Explanation	Carl Hempel, 'The Thesis of Structural Identity'	Nov 18
	<i>Quiz 2</i>	Nov 20
Unit 6: Realism	Bas van Fraassen, 'Extracts from <i>The Scientific Image</i> '	Nov 25–27
Unit 7: Values	Heather Douglas, 'Inductive Risk and Values in Science' Stephen Jay Gould, 'Measuring Heads'	Dec 2–9

*The course calendar is provisional and subject to change.
Please check this Course Outline regularly for updates.*

Department of Philosophy and Carleton University Policies (Fall/Winter 2026-27)

Assignments:

Please follow your professor's instructions on how assignments will be handled electronically. We no longer allow hard copies to be placed in the department's essay box.

Evaluation:

Standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by the instructor may be subject to revision. No grades are final until they have been approved by the Dean.

Deferrals for Term Work:

If students are unable to complete term work because of illness or other circumstances beyond their control, they should contact their course instructor no later than *three working days* after the due date. Normally, any deferred term work will be completed by the last day of the term. Term work cannot be deferred by the Registrar.

Deferrals for Final Exams:

Students are expected to be available for the duration of a course including the examination period. Occasionally, students encounter circumstances beyond their control where they may not be able to write a final examination or submit a take-home examination. Examples of this would be a serious illness or the death of a family member. If you miss a final examination and/or fail to submit a take-home examination by the due date, you may apply for a deferral no later than *three working days* after the exam date or original due date (as per the University Regulations in [Section 4.3 of the Undergraduate Calendar](#)). Visit the [Registrar's Office](#) for further information.

Plagiarism:

The University Academic Integrity Policy defines plagiarism as '*presenting, whether intentionally or not, the ideas, expression of ideas or work of others as one's own.*' This includes reproducing or paraphrasing portions of someone else's published or unpublished material, regardless of the source, and presenting these as one's own without proper citation or reference to the original source.

Examples of sources from which the ideas, expressions of ideas or works of others may be drawn from include but are not limited to books, articles, papers, literary compositions and phrases, performance compositions, chemical compounds, artworks, laboratory reports, research results, calculations and the results of calculations, diagrams, constructions, computer reports, computer code/software, material on the internet and/or conversations

Examples of plagiarism include, but are not limited to:

- any submission prepared in whole or in part, by someone else, including the unauthorized use of generative AI tools (e.g., ChatGPT);
- using ideas or direct, verbatim quotations, paraphrased material, algorithms, formulae, scientific or mathematical concepts, or ideas without appropriate acknowledgment in any academic assignment;
- using another's data or research findings without appropriate acknowledgement;
- submitting a computer program developed in whole or in part by someone else, with or without modifications, as one's own;
- failing to acknowledge sources with proper citations when using another's work and/or failing to use quotations marks.

Plagiarism is a serious offence that cannot be resolved directly by the course's instructor.

The Associate Dean of the Faculty follows a rigorous [process for academic integrity allegations](#), including reviewing documents and interviewing the student, when an instructor suspects a violation has been committed. Penalties for violations may include a final grade of “F” for the course.

It is the responsibility of each student to understand the full meaning of ‘plagiarism’ as defined in the Undergraduate or Graduate Calendars, and to avoid both committing plagiarism and aiding or abetting plagiarism by other students. ([Section 10.1 of the Undergraduate Calendar Academic Regulations](#))

Statement on AI:

As our understanding of the uses of AI and its relationship to student work and academic integrity continue to evolve, students are required to discuss their use of AI in any circumstance not described in the course outline with the instructor to ensure it supports the learning goals for the course.

Mental Health:

As a student you may experience a range of mental health challenges that significantly impact your academic success and overall well-being. If you need help, please speak to someone. There are numerous resources available both on- and off-campus to support you. For more information, please consult <https://wellness.carleton.ca/>.

Academic Accommodation:

Carleton is committed to providing academic accessibility for all individuals. You may need special arrangements to meet your academic obligations during the term. The accommodation request processes, including information about the Academic Consideration Policy for Students in Medical and Other Extenuating Circumstances, are outlined on the Academic Accommodations website (<https://carleton.ca/accessibility/accommodations/>). Examples of special arrangements include:

- *Pregnancy or religious obligation:* write to your professor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit the [EIC](#) website.
- *Academic accommodations for students with disabilities:* The [Paul Menton Centre](#) for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send your Letter of Accommodation at the beginning of the term, and no later than two weeks before the first in-class test or exam requiring accommodation. After requesting accommodation from PMC, meet with your professor to ensure accommodation arrangements are made.
- *Survivors of Sexual Violence:* As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and where survivors are supported through academic accommodations as per [Carleton’s Sexual Violence Policy](#).
- *Accommodation for Student Activities:* Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist.

Important Dates:

Sept. 9	Fall term begins.
Sept. 22	Last day for registration and course changes for fall term and fall/winter (two-term) courses.
Sept. 30	Last day for entire fee adjustment when withdrawing from fall term or two-term courses.
Oct. 12	Statutory holiday. University closed.
Oct. 26-30	Fall Break – no classes.
Nov. 15	Last day for academic withdrawal from fall term courses. Last day to request Formal Examination Accommodations for December examinations and two-term midterm examinations.
Nov. 27	Last day for summative tests or examinations, or formative tests or examinations totaling more than 15% of the final grade, before the official examination period.
Dec. 11	Last day of fall term classes. <i>Classes follow a Monday schedule.</i> Last day that can be specified by a course instructor as a due date for term work for a fall term course.
Dec. 12-23	Final examinations for fall term courses and mid-term examinations in two-term courses. Examinations are normally held all seven days of the week.
Dec. 23	All take-home examinations are due.
Jan. 6	Winter term begins.
Jan. 19	Last day for registration and course changes in the winter term.
Jan. 31	Last day for a full fee adjustment when withdrawing from winter term courses or from the winter portion of two-term courses.
Feb. 15	Statutory holiday. University closed.
Feb. 15-19	Winter Break – no classes.
Mar. 15	Last day for academic withdrawal from fall/winter and winter courses. Last day to request Formal Examination Accommodations for April examinations.
Mar. 25	Last day for summative tests or examinations, or formative tests or examinations totaling more than 15% of the final grade, in winter term or fall/winter courses before the official examination period.
Mar. 26	Statutory holiday. University closed.
Apr. 9	Last day of two-term and winter term classes. Last day that can be specified by a course instructor as a due date for two-term and for winter term courses.
Apr. 10	No classes or examinations take place.
Apr. 11-23	Final examinations for winter term and two-term courses. Examinations are normally held all seven days of the week.
Apr. 23	All take-home examinations are due.

Addresses:

Department of Philosophy:
www.carleton.ca/philosophy
 520-2110

Registrar's Office:
www.carleton.ca/registrar
 520-3500

Academic Advising Centre:
www.carleton.ca/academicadvising
 520-7850

Writing Services:
<https://carleton.ca/csas/support/>
 520-3822

MacOdrum Library
<http://www.library.carleton.ca/>
520-2735