AIM of the course

Philosophers work with ideas, rather than facts, and they may shy away from science in general, because the sciences are not the humanities and philosophy is part of the humanities. However, philosophers have played an important role in founding the modern sciences---most of them began in philosophy---and in our day, both the physical and social sciences are accepted as ultimate authorities about reality. Science is also closely related to technology, which has changed the social world. The aim of this Introduction to Philosophy of Science is for the student to become familiar with:

1. WHAT MAKES A FIELD OF STUDY A SCIENCE.
2. HOW THE SOCIAL SCIENCES ARE SCIENCES.
3. THE NATURE OF SCIENTIFIC EXPLANATION
4. THE NATURE OF SCIENTIFIC THEORIES AND THEIR CHOICE
5. THE RELATION OF VALUES TO SCIENCE

Requirements, texts, grade components

Grade components: five (2-page) or 600 word papers @ 15 pts. each = 75%
Class participation based on the readings due for each meeting = 25%

UO letter grading, as usual, e.g. C= 73-76, C+ = 77-79, B-= 80-82, B=83-86, B+=87-89, A-=90-92, A=93-96, A+=97-100 (-it’s possible).

Absences - You are allowed 3 free absences from lecture, which do not require a written excuse or advance notification, unless you are missing a due date for a paper, and, 2 free absences from section. Absences over these amounts require documentation to be excused. Otherwise, each unexcused absence from lecture or section will detract 2 points from your final grade.

Class atmosphere - mutual respect, no electronic devices (unless related to a disability)

Late papers - Late papers will be accepted without penalty if you have the kind of documentation that would count as an excused absence.
Otherwise, late papers will lose a third of a letter grade for each class day they are handed in late. E.g. if a paper due on Monday (which they all are) is handed in on Wed. a B grade will be lowered to a B-. If it is handed in on Friday, to a C+ and on the next Monday, to a C. The maximum penalty for late papers is a deduction of 2 letter grades. If you fall behind, please stay in touch with your GTF about your plans to catch up and how s/he will grade your late papers and absences.


Supplementary material – TBA and posted on BB as relevant.

SCHEDULE AND ASSIGNMENTS> All reading assignments are due before the class day for which they are assigned. Assignments refer to the article number and author's last name, in Intro Readings in the Philosophy of Science.

Part 1. THE NATURE OF SCIENCE

Week I
M. Introduction
W. 1. Popper
F. 2. Ziman

Week II
M. 3. Feyerabend
W. 4. Thagard
F. 5. Kitcher

Part 2. THE SOCIAL SCIENCES

Week III
M. Paper #1 due: Referring to the readings in Part I, Write a reply to the case study letter on p. 99, as though you were the journal editor.
M. 6. Introduction; Taylor
W. 7. Kuhn
F. 8. Machlup

Week IV
M. 9. Rosenberg
W. 9. Rosenberg; 10. Fay and Moon
F. 10. Fay and Moon

Part 3. SCIENTIFIC EXPLANATION

Week V
M. Paper # 2. Due: In terms of how the social sciences differ from the physical sciences, write an essay about the role of interpretation, anti-naturalism, hermeneutics, and critique in the social sciences.
M. 11. Introduction; Hempel
W. 12. Lambert and Britten
F. 13. Cartwright

**Week VI**
M. 14. Salmon
W. 15. Van Frassen
F. 16. Kitcher

Part 4. SCIENTIFIC THEORIES AND CHOOSING THEM

**Week VII**
M. Paper no. 3. due. Read the case study on p. 302 and answer all 6 questions that follow it. Number your answers and devote about the same amount of space to each answer (not exceeding 600 words).
M. Introduction; 17 Carnap.
W. 19. Hanson
F. 22. Maxwell

**Week VIII**
M. 26. Kuhn
W. 27. Hempel
F. 28. Frank

Part 5. SCIENCE AND VALUES

**Week IX**
M. Paper no. 4 due. Referring to the readings in Part 4, write an essay commenting on this statement: “Scientific theories should be summaries of facts by experts and therefore successful scientific theories are chosen because they are true.”
M. Introduction; 29 Rudner
W. 31. McMullen
F. 33. Giere

**Week X**
M-F> student presentations---both in sections and in the lecture class---to count toward participation grade.

Friday – Paper # 5 due at beginning of last class: (A) What does it mean to claim that scientists make value judgments or that science is “value-laden”? (B) With your definition in mind, explain what Giere thinks is “the feminist question” in philosophy of science.

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**APPENDIX, A-D**

**A. Disability**
Philosophy Department faculty and instructors do their best to comply with Disability Services policy and instructions, as follows. Please see no. 4 in particular.

At a minimum, Instructors have the responsibility to ensure Full access for students with disabilities by responding to a student’s need or request for accommodations as outlined below.
1. **If a student presents you with a notification letter from DS:**
   
   You have the responsibility to cooperate with DS in providing authorized accommodations in a reasonable and timely manner. The specific accommodation determines the amount of involvement required. Refer to the section below entitled "Examples of Shared Responsibility" for a description of your involvement in providing the most common accommodations.

2. **If a student does not present you with a notification letter from DS:**
   
   If a student requests an accommodation without having presented you with the notification letter from DS, please refer the student to DS. If the student is already on file with DS, a request form just needs to be filled out. If the student is new to DS, the process to review documentation and meet with the student may take some time. If the disability is obvious and the accommodation appears appropriate, you may need to provide the accommodation while awaiting official notification. If you are unsure, please call DS for assistance.

3. **If a student discloses a disability to you:**
   
   Ask to see the notification letter from DS. This letter describes the accommodations that the institution is legally mandated to provide. During an office hour or at another convenient time, discuss the letter and the accommodations with the student. Students MUST present a notification letter from DS to receive testing accommodations. If the student does not have a letter, please refer the student to DS. Appropriate accommodations will be determined after reviewing documentation of the disability and the student will be issued the notification letter.

4. **If you have a question about the appropriateness of an accommodation:**
   
   Questions about the appropriateness of certain accommodations should be directed to the Director of DS.

5. **If a disability is suspected:**

   Share your concerns with the student regarding his or her performance. If the concern seems disability-related, ask if he or she has ever received assistance for a disability. If it seems appropriate, refer the student to DS for further discussion and guidance. It is the student's decision whether or not to self-identify to DS; however, to receive accommodations, disclosure to DS with proper documentation is required.

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**B. GRADES **

**U of O Philosophy Department Policy**

What kind of paper deserves an “A,” “B,” etc.? The following reflects the general standards of the Philosophy Department at the University of Oregon.

- **A** = excellent. No mistakes, well-written, and distinctive in some way or other.
- **B** = good. No significant mistakes, well-written, but not distinctive in any way.
- **C** = OK. Some errors, but a basic grasp of the material.
- **D** = poor. Several errors. A tenuous grasp of the material.
- **F** = failing. Problematic on all fronts indicating either no real grasp of the material or a complete lack of effort.

Please note: what counts as “excellent” or “OK,” for example, depends in part upon the nature and level of the class in question.

**Discussion** forms an integral part of the course, and your performance will be graded on the basis of the quantity and quality of your participation. You should arrive prepared to discuss the material and course assignments.

**C. Academic Honesty**

The stiffest punishments possible will be sought for those who plagiarize, fabricate, or cheat. (The usual punishment is an “F” for the course.) The following offers examples of academic dishonesty.

**Plagiarism** Plagiarism is the inclusion of someone else's product, words, ideas, or data as one's own work. When a student submits work for credit that includes the product, words, ideas, or data of others, the source must be acknowledged by the use of complete, accurate, and specific references, such as footnotes. Expectations may vary slightly among disciplines. By placing one's name on work submitted for credit, the student certifies the originality of all work not otherwise identified by appropriate acknowledgements. On written assignments, if verbatim
statements are included, the statements must be enclosed by quotation marks or set off from regular text as indented extracts.

*A student will avoid being charged with plagiarism if there is an acknowledgement of indebtedness. Indebtedness must be acknowledged whenever:*

1. one quotes another person's actual words or replicates all or part of another's product;
2. one uses another person's ideas, opinions, work, data, or theories, even if they are completely paraphrased in one's own words;
3. one borrows facts, statistics, or other illustrative materials—unless the information is common knowledge.

Unauthorized collaboration with others on papers or projects can inadvertently lead to a charge of plagiarism. If in doubt, consult the instructor or seek assistance from the staff of Academic Learning Services (68 PLC, 346-3226). In addition, it is plagiarism to submit as your own any academic exercise (for example, written work, printing, computer program, art or design work, musical composition, and choreography) prepared totally or in part by another.

Plagiarism also includes submitting work in which portions were substantially produced by someone acting as a tutor or editor.

**Fabrication**

Fabrication is the intentional use of information that the author has invented when he or she states or implies otherwise, or the falsification of research or other findings with the intent to deceive.

Examples include, but are not limited to:

1. citing information not taken from the source indicated;
2. listing sources in a reference not used in the academic exercise;
3. inventing data or source information for research or other academic exercises.

**Cheating**

Cheating is an act of deception by which a student misrepresents or misleadingly demonstrates that he or she has mastered information on an academic exercise that he or she has not mastered, including the giving or receiving of unauthorized help in an academic exercise.

Examples include, but are not limited to:

1. copying from another student's paper, computer program, project, product, or performance;
2. collaborating without authority or allowing another student to copy one's work in a test situation;
3. resubmitting substantially the same work that was produced for another assignment without the knowledge and permission of the instructor;
4. writing a paper for someone else or permitting someone else to take a test for you.

**E. HOW TO WRITE GOOD PHILOSOPHY PAPERS**

Note: When you get your papers back, there will be comments. The letters in parentheses indicate what aspect of your writing might need improvement and you may see them the second or third time this aspect still needs work.

1. **CLARITY** (CL) Since this is a philosophy paper, make sure that you define your terms and give reasons for claims. All of your ideas should be explicitly stated and not left to the reader to infer. One difference between philosophy and literature is that philosophers spell everything out, while creative writers depend on the imagination of the reader.

2. **PRECISION** (P) Try not to make vague claims or general statements about the ideas in the readings. Be accurate in reporting the views of others and exact in stating your own.
3. **ORGANIZATION** (O) Organize the ideas in the paper into a few coherent paragraphs. Summarize the main claims of your paper in 2 or 3 sentences that you write *after* you write the paper, but put at the very beginning of the paper. This is an appropriate introductory paragraph for a philosophy paper, not a filler or a fluffy beginning.

3. **WRITING MECHANICS** (WR) The mechanics include spelling, punctuation, syntax and complete sentence structure. Make sure that you already have these down or consult a source if you don’t. Highly recommended is Strunk and White’s *The Elements of Style*. This is available online at [www.bartleby.com/141/](http://www.bartleby.com/141/)

4. **ANALYSIS** (A) Analyze claims. This means breaking your ideas down into their simpler components, and defining them. Do not start with or rely on dictionary definitions, but use your own words and cite the dictionary only if necessary. Dictionary definitions report usage, whereas a philosophical definition may be critical of current usage or find it vague. Examine the logical consequences of your claims and the claims of others.

5. **CITATION** (C) Cite the required readings this way in your text: (author’s last name, page no.) As well, provide a list of citations at the end of the paper. It is important to do this to show you have done the required reading and are not just recycling notes from class or discussion group lectures. If you do use material from lecture, please make sure to cite that as well.

6. **QUOTATIONS** (Q) Quotations should be used to illustrate a claim that you are making about an author. They are not a substitute for explaining the author’s thought in your own words. A good strategy is to state the author’s ideas in your own words first and then “prove” your interpretation with a short quote.

7. **DIRECT** (D) Be direct. Make sure that you give a direct and focused answer to the question for the paper. This is the most important requirement for papers to reach the B and A range.