**[[1]](#footnote-1)\*Spring 2023 Syllabus** **for**

**PHIL 125:** Philosophy of Science



Instructor: Dr. Garret Merriam

Class Time and Location: MW 11am-11:50am, Douglas Hall 110

Office Hours: MW: 3-4 pm (and by appointment)

via Zoom, [which you can find here](https://csus.zoom.us/j/84125140494).

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**Course Description:**  Study of the philosophical problems that arise in the sciences: the nature of scientific reasoning, the limits and styles of explanation, identifying pseudoscience, values in science, unity and diversity of the sciences, and science's impact on our world view.

**Required Textbook:** *Theory and Reality* by Peter Godfrey-Smith. The textbook is available online. If you have any difficulty procuring the textbook, please talk to me.

**Formal Course Outcomes:** Upon completion of the course, you should be able to:

1) Understand major terms, concepts and theories in the philosophy of science and be able to apply them to novel situations.

2) Discuss, both verbally and in writing, various perspectives on major questions in the philosophy of science and formulate coherent and persuasive arguments from various perspectives on those questions.

3) Think for yourself, question your assumptions, and come to your own conclusions.

This course satisfies [GE Area B5](https://www.csus.edu/acaf/ge/GE%20Assessment/Area%20B-5.pdf).

**Class Structure: Online Lecture, In-Class Discussion**: This course is an online/in-person hybrid. We meet in person for two hours a week, with roughly one hour a week reserved for online material. I will be posting recorded lectures, quizzes and discussion boards for each reading. The basic idea is that you will (1) do the reading, (2) take the reading quiz, (3) watch the recorded lecture, (4) post your thoughts on the discussion board, then (5) show up to class ready to discuss the material. Fairly little lecture will happen in-person; that’s what the online portion of the course is for. Come ready to talk about the material, that’s what in-class time will mostly be dedicated to.

**Grading:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Assignment | Due | Value (pt) | Percentage (%) | Letter Grading |
| **Discussion/Participation** | Weekly | 150 | 15 | A = 93-100% |
| **Reading Quizzes**  |  Weekly | 150 | 15 | A- =92-90% |
| **1st Paper Rough Draft** | 3/3  | 150 | 15 | B+ = 89-87% |
| **1st Paper Final Draft** | 3/24 | 250 | 25 | B = 86-83% |
| **2nd Paper Final Draft** | 5/5 | 300 | 30 | B- = 82-80% |
| Total Points |  |  1,000  |  100 | Etc. |

**Discussion/Participation:** For each reading I will post a series of questions on the discussion board for Canvas. You will be required to write up a short (~200 words) post answering at least one of those questions in detail. You should address anything that stood out to you as interesting, incorrect, unclear or thought-provoking. You should ask at least one substantive question (e.g.--more than just ‘what do you guys think?’) either to me, or to the rest of the class in each post. These discussions will be the basis for our in-class discussion. I will expect you to speak to the answers you give on the board in class.

To get full credit you must post at least once THE NIGHT BEFORE we discuss the reading in class, but the boards will be open for further discussion afterwards. Each board is worth 10 points.

 **Reading Quizzes:** Each week there will be short quizzes on the readings. Each quiz will be 5 questions long, worth 2 points each for a total of 10 points. The purpose of the quiz is to make sure you’ve done the reading, and will focus on the basic facts in the reading. The quizzes are open book, open notes. You will have 15 minutes to complete the quiz.

**Paper Rough Drafts:** A rough-draft of your long paper. It should specify (1) your thesis statement, (2) a short summary of the reading(s) you’re responding to, (3) your own original argument in response to the reading(s), (4) a charitable objection to your argument as a counterpoint, and (5) your response to that objection.

**Paper Final Drafts:** Your final draft must be 1,200 words (about 4 pages, double-spaced), ideally (but not necessarily) revised from your rough draft. You will need to demonstrate both an understanding of what you’ve read and an ability to think about it and criticize it in your own terms. There will be a lecture dedicated to how to write a philosophy paper.

**Attendance Bonus and Penalty:** To give you an incentive to show up, each one of you starts with 60 bonus points (out of 1000) that will be attributed to your final grade.  Every time you miss a class without a documented excuse, I take 30 points away from your grade.  Hence, you can miss two classes before your extra points run out; after that, it starts eating into your earned points.

**AI and Academic Misconduct:** Using an AI text generator for any class assignments, unless the instructor specifically instructs otherwise is dishonest and will be considered a violation of the [CSUS Academic Honesty policy here](here.%20%20https%3A/www.csus.edu/umanual/student/stu-100.htm).Submitting any course assignments or prompts to an AI text generator and then submitting the results or any altered form of the results for credit for the assignment in class unless specifically instructed to do so by the instructor will be considered plagiarism, and it could be subject to the full range of sanctions outlined in the university policy.

In addition to using TurnItIn, this course may use rapidly evolving technology (like [this](https://www.npr.org/2023/01/09/1147549845/gptzero-ai-chatgpt-edward-tian-plagiarism)) to help detect when student writing has been assisted by AI technology (like Chat GPT). Improper use of AI technology can be grounds for a charge of plagiarism or other academic misconduct, leading to academic penalties (like failing a course) and administrative penalties (like expulsion from the university), regardless of when the academic misconduct is discovered. It is likely that, in the arms race that is digital technology, what seems like today’s detection-proof AI writing tool will be easy to detect by tomorrow, or next week, or next month.

**S**hould you be caught cheating on a paper, quiz, discussion post or an exam, this may be grounds for your **immediate failure** of the course. ALL incidents of cheating and plagiarism will be reported both to the Department Chair and to the Judicial Officer in the Office of Student Affairs for possible further administrative sanction.

Everyone must complete [the Plagiarism Tutorial here](https://lib.usm.edu/help/tutorials/) and have a copy of your results sent to me before I will grade your papers.

**Late Work Policy**: I am willing to give short extensions on assignments, provided the request is made BEFORE the due date. Otherwise, no late assignments will be accepted.

To prove that you read the syllabus: Beneath the syllabus posting on Canvas there is a tab labeled “Did you read the syllabus?” Click on it and attach a picture of a pet (cat, dog, etc.) I will not grade any of your assignments until you complete this task.

**Course Schedule (Subject to Change)**

Week of 1/23— Course Introduction and Overview

* Syllabus and course mechanics
* A Brief History of Science (Antiquity to 1900)

Week of 1/30 — Chapter 1

Week of 2/6— Chapter 2

Week of 2/13— Chapter 3 (+Nelson Goodman’s “The New Riddle of Induction”)

Week of 2/20— Chapter 4 (+Karl Popper’s “Science: Conjectures & Refutations”)

Week of 2/27-Ch. 5 (+Thomas Kuhn’s “Objectivity, Value Judgment & Theory Choice”)

Week of 3/6 - Chapter 6

Week of 3/13-Chapter 7 (+Paul Feyerabend’s “How to Defend Society Against Science”)

Week of 3/20 – Spring Break (No classes)

Week of 3/27— Chapter 10 (plus W.V.O. Quine’s “Epistemology Naturalized”)

Week of 4/3— Chapter 11

Week of 4/10 - Chapter 12

Week of 4/17 – Chapter 13

Week of 4/24 - Chapter 14

Week of 5/1-Feminist Approaches to the Philosophy of Science

Week of 5/8—Why Trust Science?

Week of 5/15- Is There a Replication Crisis in Science?**Finals Week**

**Reasonable Accommodations:** If you have a documented disability (visible or invisible) and require accommodation or assistance with assignments, tests, attendance, note taking, etc., please see the instructor by the end of the third week of the semester so that arrangements can be made. Failure to notify and consult with the instructor by this date may impede my ability to offer you the necessary accommodation and assistance in a timely fashion. Also be sure to consult with the [Services to Students with Disabilities in Lassen Hall](http://www.csus.edu/sswd/index.html) to see what other campus services and accommodation options are available for you. Students with other types of accommodation requirements, such as English as a second language, are invited to discuss them with the instructors to facilitate understanding and the best learning experience for all. All information will remain confidential.

Student Health & Counseling Services

     Due to the current and ongoing events faced by many during this public health crisis and era of civil unrest, the University recognizes that many of you may be in need of support.  Please be aware that [Health and Counseling Services](https://www.csus.edu/student-life/health-counseling) staff are available for virtual and in-person services.

     Additionally, if you are experiencing any COVID-like symptoms (fever, cough, sore throat, muscle aches, loss of smell or taste, nausea, diarrhea, or headache) or have had exposure to someone who has tested positive for COVID contact **Student Health & Counseling Services (SHCS) at 916-278-6461** to receive guidance and/or medical care. You are asked to report any possible COVID-related illnesses or exposures to SHCS via this link [COVID-19 Illness/Exposure Report Form](https://sacstateshcs.wufoo.com/forms/covid19-illnessexposure-report/). You should expect a call from SHCS within 24 hours.

     As an FYI, the [Sac State Mobile App](https://www.csus.edu/information-resources-technology/communication-collaboration/sacstate-mobile.html) also has a self-assessment tool, in case you would like to screen yourself for symptoms of COVID-19.  Feel free to utilize it, especially if you plan on going somewhere where others may be exposed (such as going to campus).  The app will also have information on the University’s latest on-campus protocols.

**Contact Information for the Chair of the Department:** If you have a problem with either the class or with me I would appreciate it if you talked to me about it first. But if you feel you cannot talk to me for some reason, you can talk to my department Chair, Dr. Russell DiSilvestro at rdisilv@csus.edu.

1. \* How could you choose avoiding a little pain over understanding a magic lightning machine? [↑](#footnote-ref-1)