

Topics in Advanced Philosophy of Science: Feminist Philosophy of Science Fall 2025

Instructor: Marina DiMarco
Pronouns: she/her/hers
Class location:
Email: m.dimarco@wustl.edu
Office:

Student drop in hours: TBD (no appointment needed, just stop by),
and by appointment, which you must make ≥ 24 hrs in advance:
[Calendly link]
If you cannot come to student hours or find a time that works on
Calendly, please email with your availability.

Course Description:

This course will vary in topics related to Philosophy of Science from semester to semester.

Feminist Philosophy of Science

Objectivity is widely celebrated as a virtue of contemporary science. Yet feminist epistemologists and philosophers of science argue that science can and sometimes should be informed by feminist values: a particular set of political values. Our questions in this course are:

Is there a *legitimate* role for political values in scientific knowledge production? *and*

If there is a legitimate role for political values in scientific knowledge production, why should those values be *feminist*?

To answer them, we will explore the ways that feminist epistemologists and philosophers of science have characterized a positive role for feminist values in scientific theory and practice. We will evaluate what these mean for traditional accounts of science as objective and value-free. We'll consider how these arguments might inform our thinking about how science ought to be done, and by whom. Using examples from contemporary scientific practice, we will attend to possible role(s) political values might play in the production of both "good science" and epistemologies of ignorance. Finally, we will ask what feminist epistemology can tell us about the structure of scientific communities, the authority and trustworthiness of scientific explanation, and about philosophy of science itself.

This course has no prerequisites.

Learning Objectives:

Students who successfully complete this course will be able to understand and evaluate feminist approaches to philosophy of science, and to apply them to cases of interest in contemporary scientific practice (broadly construed).

Course Requirements and Grading: There are four primary sources of feedback and credit for this course. Auditors will not be subject to formal assessment but are invited to complete course activities for feedback.

1. Contributions to class meetings +10

Contributing to class means showing up on time, prepared to share your questions and ideas about the materials. Absences due to illness and emergency will be excused. Do not come to class when you are sick. Please focus on getting better, and email me to let me know what is going on so we can make alternative arrangements. I will consider other candidate justifications for excused absence on a case by case basis. Example circumstances for which I have previously refused to excuse absences include the need to study for another class and personal travel plans. Attendance credit is calculated as the percentage of classes attended or excused x 10 points.

You should expect to work hard during class meetings. In-class discussions and activities should be documented in your lab notebook (see below). We will establish and practice class norms in Week 1. Repeated violation of these norms will reduce participation credit at my discretion. I expect you to refrain from using electronic devices during class meetings. If you wish to use a laptop or tablet during class meetings, please come to office hours or schedule a meeting to discuss individual permission.

2. Lab Notebook +50 (adapted from [Ryan Cordell's Commonplace Book](#) assignment)

The lab notebook is a place for you to practice thinking and writing while you prepare for class, take conceptual notes during discussions, archive material objects from class activities and your own research, reflect on your own, and plan your creative project (see below). When complete, it will be a portfolio of your work from the course and a template for future study. You can earn up to two points per class meeting (x 25 meetings 8/27-12/1 = 50 points) by completing specific preparatory exercises (like answering reading questions) before each class and completing activities during and after class in your notebook. Prep tasks will be provided at least a week in advance, and you can do the whole prep for the week before the first meeting if you prefer. Sometimes these will involve printing or transcribing material into your notebook. I will ask you to submit a photo of notebook prep entry before each class begins, and I'll collect notebooks a few times during the semester to provide more detailed feedback. Lab notebook entries will be graded with the Lab Notebook Rubric.

The lab notebook should be a physical, bound (not spiral tear-out) book, written in pen, with dated entries and a table of contents. If you have a compelling reason to request a digital modality for your lab notebook, please come to office hours or schedule an individual meeting as soon as possible in the semester to discuss individual permission.

3. Check-ins +10

In addition to the notebook itself, each student will complete two individual ~30 minute check-ins to review their book 1:1 with the instructor. The point of the check in is for students to pick one or two days from their book to show off, and to do some collaborative reflection on their learning in the course. Each meeting is worth up to five points. Specific expectations and directions for preparing for check-ins will be provided in the Check-in Rubric.

4. Essay or Creative Project +30

The essay or creative project is an opportunity for you to explore a question or topic related to the course in greater depth, perhaps integrating your other skills and interests. For example, you might draft and revise a popular audience piece on a topic related to the course, record a podcast, write a song, create a zine, help revise your lab's lab manual, or write a research paper.

Whatever you decide, you will submit your plan for the creative project (+2), along with a proposal for how you think I should evaluate your project (+3), and present your work-in-progress to the class in our final meeting (+5) before you submit the project itself (+20). I strongly recommend that you meet with me to discuss your plans before you submit them in writing, and I must sign off on your proposal and your rubric before you can receive credit for the project itself (this sometimes takes some back-and-forth). More specific expectations can be found on the rubrics for each of these assignments. Collaboration on the essay or creative project is permitted but requires instructor approval.

Graduate students: If you are a graduate student taking the 5180 version of the course for seminar credit, your creative project should include a significant research component, akin to a 4500-6000 word research paper (it is fine if you prefer it to be a 4500-6000 word paper). I will also ask you to write the lab notebook prep tasks for the class for one full week of your choosing from weeks 8 onward. This will serve as your notebook task credit for that week (2 classes = 4 points). To review and approve your proposed prep tasks, I need to receive them at least 10 days before the Monday of the relevant week. I am happy to meet to brainstorm and discuss these assignments beforehand.

Assignment percentage breakdown (undergraduate and graduate): 10% class contributions, 50% lab notebook, 10% check-ins, 30% essay or creative project.

Here's how the points you earn will correspond to your grade:

A+ 97+ points	A 93-96 points	A- 90-92 points
B+ 87-89 points	B 83-86 points	B- 80-82 points
C+ 77-79 points	C 73-76 points	C- 70-72 points
D+ 67-69 points	D 63-66 points	D- 60-62 points

If you are taking the course pass/fail, you must earn at least a C (minimum 73 points) for “pass” credit.

Late work: We all need a little flexibility from time to time. Late work is worth 10 percent fewer points per business day after it is due. You may be able to avoid this penalty by writing to me at least 24 hours before the deadline to negotiate an extension, or by communicating about the illness or emergency that disrupted your ability to complete the task on time. **I am trying to get you to ask for an extension or to explain what’s going on in your life.** I reserve the right not to enforce the late work policy.

Academic integrity:

In all academic work, the ideas and contributions of others (including generative artificial intelligence) must be appropriately acknowledged and work that is presented as original must be, in fact, original. You should familiarize yourself with the appropriate academic integrity policies of your academic program(s).

Our learning and scholarship are deeply indebted to others. Academic integrity is the skill and habit of recognizing this. It goes beyond avoiding plagiarism to include expressing gratitude, showing that you are a generous participant in a conversation, allowing others to retrace your footsteps, and performing many other functions. To help you cultivate this skill, academic work in this class is subject to particular norms and expectations. First, we will adhere to the university’s full academic integrity policy:

<https://wustl.edu/about/compliance-policies/academic-policies/undergraduate-student-academic-integrity-policy/>

If collaboration is explicitly permitted on an assignment, you should list your collaborator’s name or student ID numbers if assignments are anonymized. If you are conducting original research, you should provide a full reference list and in-text citations (any style with page numbers for quotations is fine). If you are using class materials for a non-research assignment, you should provide in-text citations (any style with page numbers for quotations is fine), but you do not need to provide a reference list. Feel free to ask questions about this.

Work that does not meet these expectations and/or university standards of academic integrity (including violations of my course policies on artificial intelligence and large language models) will not count toward your evaluation in this course (i.e. will earn no points) and will be reported to the Academic Integrity Coordinators in the Office of the Provost.

Artificial Intelligence and Large Language Models:

Large language models (LLMs) such as ChatGPT can have a place in our research and learning toolkits. They must also be used judiciously and with care, as (1) their output must be critically evaluated and interpreted; (2) using them can undermine the goals of an activity or an assignment; (3) they have a substantial environmental impact, among other harms.¹ If I do not explicitly approve the use of LLMs for a class activity or assignment, I will consider it a violation of academic integrity and a breach of trust. You may not upload any course materials to a LLM. If I approve the use of LLMs for a specific assignment, I expect you to cite them appropriately. I will not use TurnItIn functionality.

Unauthorized recording and distribution of classroom activities & materials:

The following applies to all students in my class: “Except as otherwise expressly authorized by the instructor or the university, students may not record, stream, reproduce, display, publish or further distribute any classroom activities or course materials. This includes lectures, class discussions, advising meetings, office hours, assessments, problems, answers, presentations, slides, screenshots or other materials presented as part of the course. If a student with a disability wishes to request the use of assistive technology as a reasonable accommodation, the student must first contact the Office of Disability Resources to seek approval. If recording is permitted, unauthorized use or distribution of recordings is also prohibited.”

Disability Resources (DR):

WashU supports the right of all enrolled students to an equitable educational opportunity and strives to create an inclusive learning environment. In the event a physical or online environment, learning activity, or learning interaction results in barriers to your inclusion due to a disability, please contact WashU’s Disability Resources (DR) to engage in a process for determining and communicating approved accommodations. As soon as possible after receiving an accommodation from DR, send me your WashU Accommodation Letter. Because accommodations are not applied retroactively, initiate your request to DR prior to, or at the beginning of, the academic term to avoid delays in accessing accommodations once classes begin. <https://disability.washu.edu/>

Sexual Harassment and assault:

If you are a victim of sexual discrimination, harassment or violence, we encourage you to speak with someone as soon as possible. Understand that if you choose to speak to me as an instructor, I must report your disclosure to my department chair, dean, or the Gender Equity and Title IX Compliance Officer, which may trigger an investigation into the incident. You may also reach out to the [Relationship & Sexual Violence Prevention \(RSVP\) Center](#) to discuss your rights and your options with individuals who are not mandatory reporters. <https://titleix.wustl.edu/students/confidentiality-resources-support/>

¹ Crawford, K. (2024). *Generative AI’s Environmental Costs Are Soaring—and Mostly Secret*. *Nature*, 20 February, 2024.

Religious holidays:

To ensure that accommodations may be made for students who miss class, assignments, or exams to observe a religious holiday, you must inform me in writing before the end of the third week of class, or as soon as possible if the holiday occurs during the first three weeks of the semester. For more information, please see the university's [Religious Holiday Class Absence Policy](#).

Emergency Preparedness:

Before an emergency affects our class, students can take steps to be prepared by downloading the WashU SAFE App. In addition, each classroom contains a “Quick Guide for Emergencies” near the door.

Resources for Students:

WashU provides a wealth of support services that address academic, personal, and professional needs. To start exploring resources that can help you along the way, please visit: [Resources for Students](#).

No part of this course is more important than your health, broadly construed. If the course is distracting you from your health or vice-versa, please contact me so that we can make it work better. There are many other wonderful people at the university and in our broader St. Louis community who can also help with specific aspects of your mental and physical health. Some of them are:

1. Habif Health and Wellness Center:
<https://students.wustl.edu/habif-health-wellness-center/>
2. Center for Counseling and Psychological Services:
<https://students.wustl.edu/counseling-psychological-services/>
3. Center for Diversity and Inclusion Community Resource Guide:
<https://students.wustl.edu/community-resources/>

You may also find the following academic resources useful:

Kareem Khalifa's “How to Read Philosophically”:
<http://community.middlebury.edu/~kkhalifa/Teaching/Guides/how-to-read.pdf>

The Chicago Manual of Style:
<https://www.chicagomanualofstyle.org/home.html>

Required Texts, Materials, and Supplies:

Beginning in week 2, **you will need a sturdy bound (not spiral tear-out) notebook and a pen** (not a pencil) to use for Lab Notebook assignments unless you secure permission to complete this assignment digitally (see below). I have a few extras I'll bring to the first class meeting. Any size is fine; if you fill one up, you can start another.

Instead of using a textbook, I will write a **primer** for some weeks where our readings require substantial introduction. You should read the primer before you start the other readings for each week. This and all other required reading and listening materials for the course will be available on Canvas. You do not need to buy any books. Some course materials are podcasts. If you need transcripts for the podcasts, please let me know early on in the course so I can arrange this.

Use of Gender-Inclusive and Non-Sexist Language:

In this course, we will use words in a way that affirm and respect how others describe, express, and experience their gender. One way to do this is to use non-sexist language in our writing. Using gender affirming and non-sexist language acknowledges people of any gender (e.g. humankind vs. mankind; first-year vs. freshman). We will also use non-sexist language in our interactions with and about one another. For instance, we will use students' (and instructors') preferred pronouns and names and we will update our use if these change over time.

Communication:

Please come to student hours and make appointments to meet outside of class! I genuinely like meeting with students and hope to continue conversations outside class time. You can stop by even if you have nothing in particular you'd like to talk about. If you need to schedule a meeting outside office hours due to a schedule conflict, please use Calendly, and be aware that you can't book a meeting with me less than 24 hours in advance.

Email and Canvas announcements will be our primary forms of professional communication. A respectable email has a subject line (ex: PHIL 3001 homework question), a salutation (ex: Dear Marina), and a signoff (ex: Sincerely,/Best,/Cheers,). I expect your emails to include these components, and **I may not reply if they don't**. You should check to see if you could figure something out by yourself (by checking the syllabus or Canvas) or asking a question in a class meeting before sending an email. If you're emailing to request a meeting outside of my Calendly availability, include your availability with specific dates and times for the proposed meeting. If you're emailing with a time-sensitive request, specify the timeline. Please sign up to receive Canvas announcements via email.

I do not typically answer student emails outside working hours or on the weekend. You are responsible for knowing about the things that I send you by email, even if you use email forwarding.

Class schedule: This plan is likely to change as we go. When I make changes, I'll announce them in class and on Canvas.

Class	Focus
1	Welcome & community norms Alette de Bodard (2012), "Immersion" (read or listen at http://clarkesworldmagazine.com/debodard_06_12/)
2	Feminist critique The Biology and Gender Study Group (1988), "The Importance of Feminist Critique for Contemporary Cell Biology"
3	The rise (and fall?) of the Value-Free Ideal(s) Heather Douglas (2009), <i>Science, Policy, and the Value-Free Ideal</i> , chapter 3
4	Primer: Underdetermination and the Argument from Inductive Risk Richard Rudner (1953), "The Scientist Qua Scientist Makes Value Judgments"
5	Thomas Kuhn (1977) "Objectivity, Value Judgment, and Theory Choice"
6	Helen Longino (1995) "Gender, Politics, and the Theoretical Virtues"
7	Feminist empiricism Helen Longino (1990), <i>Science as Social Knowledge</i> , Chapter 4
8	Carla Fehr (2011) "What Is in It for Me? The Benefits of Diversity in Scientific Communities"
9	Dan Hicks (2011), "Is Longino's Conception of Objectivity Feminist?" <i>Notebooks collected for feedback, available for pickup by 6pm in my office</i>
10	Susan Haack (1993), "Epistemological Reflections of an Old Feminist"
11	Elizabeth Anderson (2004), "Uses of Value Judgments in Science: A General Argument, with Lessons from a Case Study of Feminist Research on Divorce"
12	Feminist critique: reprise Your choice of: Hilary Rose (1983), "Hand, Brain, and Heart: A Feminist Epistemology for the Natural Sciences"

	<p>and/or</p> <p>Ruth Hubbard (1988), "Science, Facts, and Feminism"</p>
13	<p>Standpoint theories and practices</p> <p>Patricia Hill Collins (2000), "Distinguishing Features of Black Feminist Thought" (In Hill Collins, 2000, <i>Black Feminist Thought</i>)</p> <p>Optional: Hill Collins (1986), "Learning from the Outsider Within: The Sociological Significance of Black Feminist Thought"</p>
14	<p>Sandra Harding (1986), "Strong Objectivity and Socially Situated Knowledge" (In Harding, 1986, <i>Whose Science? Whose Knowledge?</i>)</p>
15	<p>Alison Wylie (2012), "Feminist Philosophy of Science: Standpoint Matters"</p>
16	<p>Kristin Intemann (2010), "25 Years of Feminist Empiricism and Standpoint Theory: Where Are We Now?"</p> <p>Optional: Pierson, Gibert, and Fraser: BioUnethical episode, "How Your Social World Shapes What You Know"</p> <p>https://www.biounethical.com/episodes/episode/7d6d88a4/20-rachel-fraser-how-your-social-world-shapes-what-you-know</p> <p><i>Notebooks collected for feedback, available for pickup by 6pm in my office</i> <i>Schedule your check-in #1 for the week of</i></p>
17	<p>Feminist postmodernisms and postcolonialisms</p> <p>Donna Haraway (1985), "A Cyborg Manifesto"</p>
18	<p>Maria Lugones (1987), "Playfulness, 'World'-Travelling, and Loving Perception"</p>
19	<p>Uma Narayan (1988), "Working Together across Difference: Some Considerations on Emotions and Political Practice"</p>
20	<p>David Ludwig and Charbel N. El-Hani (2020), "Philosophy of Ethnobiology: Understanding Knowledge Integration and Its Limitations"</p> <p>Optional: David Ludwig, Fabio Gatti, and Esther Milberg Muñiz, "Reclaiming Epistemic Diversity"</p> <p>https://magazine.scienceforthepeople.org/vol26-2-ways-of-knowing/reclaiming-epistemic-diversity-corporate-capture/#easy-footnote-17-16428</p>
21	<p>Feminism, data, and models</p>

	Kyle Whyte (2024), "Why Does Anything Need to be Called Wild?" (In Minter and Losos, eds., <i>The Heart of the Wild: Essays on Nature, Conservation, and the Human Future</i>)
22	<p>Alexandra Kralick et al. (2023), "Specimens as individuals: Four interventions and recommendations for great ape skeletal collections research and curation"</p> <p>Optional: Caitlin Wylie (2021), <i>Preparing Dinosaurs</i>, Introduction (open access: https://mitpress.mit.edu/9780262542678/preparing-dinosaurs/)</p> <p><i>Alternate Universe: Charles Mills (2005), "Ideal Theory' as Ideology"</i></p> <p><i>Submit your creative project proposal by DATE at midnight.</i></p>
23	<p>Catherine D'Ignazio and Lauren F. Klein (2020), <i>Data Feminism</i>, Chapter 5 "Unicorns, Janitors, Ninjas, Wizards, and Rock Stars"</p> <p><i>Alternate Universe: Leif Hancox-Li (2017), "Idealization and Abstraction in Models of Injustice"</i></p>
24	<p>Angela Potochnik (2012), "Feminist Implications of Model-Based Science"</p> <p><i>Notebooks collected for feedback, available for pickup by 6pm in my office</i></p> <p><i>Submit your creative project rubric by DATE at midnight.</i></p>
25	<p>Jingyi Wu (2022), "Epistemic advantage on the margin: A network standpoint Epistemology"</p> <p>Optional: Cailin O'Connor (2017), "Modeling Minimal Conditions for Inequity"</p>
26	<p>Summary and concluding reflections</p> <p>Helen Longino (2022), "What's Social About Social Epistemology?"</p>
27	<p>Celebration of student work!</p> <p><i>In class: student presentations on essays or creative projects in progress.</i></p> <p><i>Schedule your check-in #2 by appointment during the exam period. Lab notebooks will be collected for final review at these meetings.</i></p> <p><i>Creative projects due DATE at TIME</i></p>