“Science from the South”
Global, Postcolonial, and Non-Western Histories of Science and Technology
History of Science 921
Tu 2:25PM - 5:25PM: EDUCATION 151

Instructor: Daniel Williford/ daniel.williford@wisc.edu
Office Hours: Tu, 12-2 pm, on Zoom or by appointment (see zoom link on Canvas)

This course is designed to introduce graduate students from a variety of disciplines to global, postcolonial, and non-Western histories of modern science and technology. Though born out of distinct intellectual traditions, the approaches we will explore share a preoccupation with how histories of science and technology remain “haunted.” We will engage with a series of subfields that have emerged during the past three decades along with their antecedents: Postcolonial Science Studies, histories of technology in Africa, the Middle East, and South Asia, studies of race and imperial science. What precisely is “postcolonial” about Postcolonial Science Studies? How does an emphasis on forms of knowledge that originated outside of Euro-American contexts shift what the “history of science” is? What new methods might these projects enable or necessitate?

We aim to strike a balance between older and more recent texts, historiographic and empirical work, theory and method. We will move between fields—both within and outside of HSMT—in an effort trace the acute epistemological and political challenges posed to and by the history of science in the past three decades. My hope is that while exploring these emerging approaches, we can move beyond evaluations of their merits or potential pitfalls toward new articulations and formulations of the “problem” that each of these subfields has attempted to address.

Official Description: Designed to develop historiographic command of global approaches to the history of science and technology. Emphasizes recent work in the history of science and technology that decenters Europe. Topics include imperial histories of science and technology, the role of local knowledges in the development of modern science and technology, non-Western scientific traditions and methods, the “globalization” of scientific and technological projects, the critiques of postcolonial studies of science, and debates about decolonizing technology. Emphasis on developing critical thinking about science and technology through formal and informal writing. No prior experience in the history of science or technology is required, but would be helpful.

Requisites: None

Credit Policy: This 3-credit course has 3 hours of group meetings per week. The course also carries the expectation that you will spend an average of at least 3 hours outside of class for every hour in the classroom. In other words, in addition to class time, plan to allot an average of at least 6 hours per week for reading, writing, and preparing for discussions for this class.

Regular and Substantive Student-Instructor Interaction: This course provides for regular and substantive student-instructor interaction through direct instruction, providing feedback on
student work, providing information about course content, and facilitating discussion of course content.

Learning Objectives

Graduate students completing this course will:

- practice a variety of reading strategies
- gain familiarity with relevant texts, topics, and approaches in History of Science, Medicine, and Technology (HSMT)
- become acquainted with current methodological issues in the field
- be able to articulate, critique, or elaborate a range of theories, research methods, and approaches to inquiry in HSMT (HSMT MA Learning Goal #1)

Course Requirements

Reading: Each week, we will read the equivalent of a book and one to two articles. A few thoughts about approaching these texts: try to leave yourself enough time to think about the readings and how they play off one another. Where do they converge and diverge? How would you think about the more programmatic and historiographic pieces in relation to the empirical ones? What broad questions do they raise about the history of science and technology or related disciplines? I have included a piece by Paul Edwards in the suggested readings section on “How to Read an Academic Book” that offers some helpful reading strategies.

Participation and Leading Discussion (25%): For the first four weeks we will set the agenda for discussion collectively. I will ask each of you what you most want to talk about, adding in my own items at the end. Starting in the week five of the semester, each member of the seminar will sign up for one of the remaining weeks and will be responsible for leading discussion on that day (certain days will be shared between two people and it is up to you whether you would like to divide up the readings or work together on all of them). There will be times when I may offer some additional context for certain texts or general questions to the group. The seminar is a space for you to speak freely about the material we will be engaging together.

Writing (Reading Responses) (25%): Each week, with the exception of the first week of the semester, you should submit a short, approximately 500-word, post on Canvas in response to the readings. The reading response posts are a chance for you to practice short-form academic writing. They should not be summaries of the texts (which given the number of readings many weeks would be impossible anyway) but analytic engagements where you consider a theme or question in relation to the texts, look for common arguments or disagreements, and reflect on relevant concepts and their implications. Broadly, they should help to set up our conversation in the seminar for that week.

Working Groups and Collaborative Project (25%): In the first week of the semester, we will divide into three working groups. Early on, each group will define an area of inquiry related to global/postcolonial/decolonial HSMT that they would like to pursue further. Each group will be responsible for coming up with a list of readings that the seminar will read together during one of
the final three weeks of the semester. During their selected week, members of the working group will present their findings on the topic and lead discussion on the texts that they selected.

Each working group is also responsible for producing a short collaborative final project. This could be a short, written text, a creative project, a manifesto, a pedagogical program, a brief “podcast” discussion of their topic, etc. Whatever final product the members decide to create should be included with the readings they selected for their assigned week at the end of the semester.

**Individual Project (25%)**: The final individual project in this course is for you to tailor to your own needs and trajectory. It could be a review essay of around 3000 words. It could be the beginnings of a professional portfolio containing several shorter writing samples. It could be a syllabus accompanied by a pedagogical statement. It could be a creative research project connected to the themes of our course. You should send me a short one-page proposal for your project before class on Week 7 and plan to meet with me to discuss it before Thanksgiving break.

**Grade Distribution**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93.0–100%</td>
</tr>
<tr>
<td>AB</td>
<td>88.0–92.9%</td>
</tr>
<tr>
<td>B</td>
<td>83.0–87.9%</td>
</tr>
<tr>
<td>BC</td>
<td>78.0–82.9%</td>
</tr>
<tr>
<td>C</td>
<td>70.0–77.9%</td>
</tr>
<tr>
<td>D</td>
<td>60.0–69.9%</td>
</tr>
<tr>
<td>F</td>
<td>0–59.9%</td>
</tr>
</tbody>
</table>

**Course Materials:**


We will read substantial selections from each of the books listed above. Apart from *Sinews of War and Trade* and *Postcolonial Animalities*, which you may want to purchase directly, they are available in electronic form in the UW-Madison library. *Sinews of War and Trade* and *Postcolonial Animalities* are also on reserve at College Library. **All other texts**—book sections or articles—are uploaded or linked to our Canvas course in the Files section.
Accommodations: I am committed to accessibility and fairness for all students. If you have any conflicts due to religious holidays or need disability accommodations, please let me know within the first two weeks of the course so we can work out accommodations.

Reference Works and Readers:


Methodological Texts:


Journals in the Field(s):

*Tapuya: Latin American Science, Technology and Society*
*East Asian Science, Technology and Society*
*Social Studies of Science*
*History and Technology*
*Technology and Culture*
*Isis*
*Osiris*
*Science, Technology, & Human Values*
Course Schedule

Week 1: Global, Postcolonial, Decolonial, Non-Western (Sept. 13)


Week 2: From the Global History of Science to the History of Knowledge (Sept. 20)


Week 3: Science, Race, and Empire (Sept. 27)


Podcast: New Books in Medicine: A Discussion with Suman Seth on *Difference and Disease: Medicine, Race, and the Eighteenth-Century British Empire*.


**Week 4: NO CLASS…**

…but do meet with your working groups during or outside of the seminar time slot to finalize your topic.

**Week 5: Decolonization (Oct. 11)**


**Week 6: “Global” Histories / “Local” Knowledges (Oct. 18)**

Osseo-Asare, Abena Dove. *Bitter Roots: The Search for Healing Plants in Africa*. Chicago: University of Chicago Press, 2014. [Intro; Ch. 1; 2; 5; Conclusion]

Laveaga, Gabriela Soto. *Jungle Laboratories: Mexican Peasants, National Projects, and the Making of the Pill*. Duke University Press, 2009. [Intro; Ch. 1; 2; 4; 6; 7]
Week 7: Persons, Bodies, Kin (Oct. 25)

**Final Project Proposal Submitted Before Class Today**


Week 8: Infrastructure, Mediation, Logistics (Nov. 1)


Week 9: Haunting the Sciences (Nov. 8)


Week 10: Postcolonial Animalities (Nov. 15)

Week 11: Postcolonial Environments (Nov. 22)


Week 12: Working Group #1 Political Economies of Medicine (Nov. 29)


Week 13: Working Group #2 Mushrooms and Materialism


Recommended: Walter Benjamin, “On the concept of History”

Week 14: Working Group #3 On Scientific Representations


(Re)Presentations-


"The Crystal Forest: Notes on the Ontology of Amazonian Spirits", by Eduardo Viveiros de Castro