

LAH 4730

Science and Technology in Latin American History, 1492-Present

Spring 2025 / Anderson Hall 0013 / Tuesday 11:45am – 1:40pm & Thursday 12:50 – 1:40pm

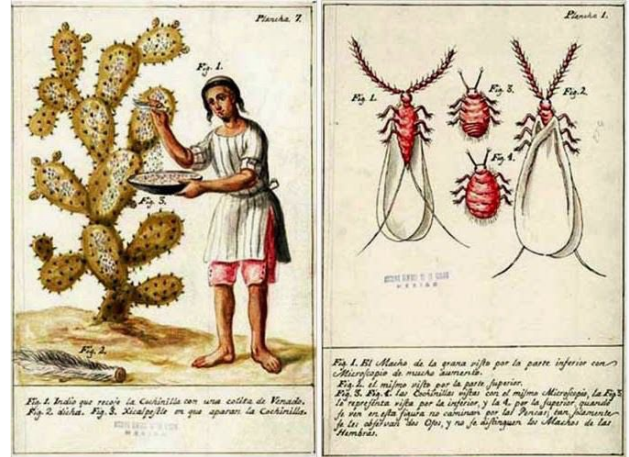
Dr. Heather Vrana

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Office hours: Tuesdays 10:45-11:45 and 2-4pm, Thursdays 11:50am-12:50pm, and by appointment

This seminar introduces the diffusion, acculturation, and adaptation of scientific ideas, practices and technology by exploring concepts within Latin America. Interrogating the old assumption that scientific knowledge comes from Europe and the U.S., and then spreads throughout the rest of the world, we will highlight the production and exchange of scientific knowledge from and within Latin America.



A page from the Badianus Manuscript, a Nahua scientific manual (1552-1553)

The course material is organized into eight thematic units: 1) What is History of Science? 2) Mapping and Counting, 3) Animals & Plants, 4) Food & Drugs, 5) Medicine & Public Health, 6) Eugenics, 7) Disability, and 8) Computing & Engineering.

In general, Tuesdays will be lectures and Thursdays will be discussion days. Your active participation is critical to the success of this class.

Buy these required books:

- Daniela Bleichmar, *Visual Voyages: Images of Latin American Nature from Columbus to Darwin*
- Nancy Leys Stepan, *The Hour of Eugenics*
- Marcos Cueto and Steven Palmer, *Medicine and Public Health in Latin America: A History*

Assignments:

1. Attendance/Participation – 200 points
 - Attendance – Attendance will be recorded for every class
 - Participation – You are expected to participate actively in class by answering questions, asking questions, and taking notes;
 - You will grade your own participation on a scale of 0-10 once every two weeks. You are expected to participate actively in class by answering questions, asking questions, and taking notes. I reserve the right to modify the grade—either up or down—and will inform you on a biweekly basis of these modifications. If you are sick, please use caution and take care of yourself and your classmates by staying home. The COVID-19 pandemic has taught us all to be more careful about spreading sickness. If you need to discuss an attendance concern, feel free to reach out to me. Requirements for make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>
2. Weekly Reading Quizzes –100 points

- There will be 12 (nearly) weekly 10-point quizzes across the semester worth 10 points each; I will drop the 2 lowest grades.
3. Midterm paper – 150 points
 - This 5-7-page paper will be written in the form of a travelogue, a map and travel guide, a set of letters, or a scientific manual. I strongly encourage you to use the History of Science in Latin America and the Caribbean (HOSLAC) website hosted by the University of New Hampshire to explore some examples.
 4. Debates – 50 each, 150 total points
 - Three times during the semester, we will have an in-class debate on important questions in the history of science, technology, and medicine. You are responsible for participating meaningfully and actively in these debates.
 5. Group Podcast Project – 200 points
 - Working in groups of about 3-5 people, you will research a topic in the history of science, technology, and medicine in Latin America that we may or may not have touched upon in class. You will engage theories of history, secondary materials, and original primary sources. You should try to include one interview. What you research is largely up to you, but it should in some way reflect the entirety of the semester, as this assignment is in lieu of a final exam. With this research, you will create a podcast. Your podcast should be at least 20 minutes long and it may be in English or Spanish (or Spanglish). You will share your podcasts with the class during the last week of class.
 6. Final Paper – 200 points
 - Summarizing at least 2 units of the course, discuss examples of scientific innovation from Latin America. Your paper should include most of the assigned primary and secondary sources for the units, as well as some relevant outside research. I strongly encourage you to use the History of Science in Latin America and the Caribbean (HOSLAC) website hosted by the University of New Hampshire. Your paper should be at least 2500 words in length.

Total: 1000 points

Note: I will make every effort to enter grades into Canvas, but you are responsible for monitoring your own grade by adding the points you earned on assignments by the points you could have earned.

/\\//Course Policies\\//

Accessibility and accommodations

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565 or www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter, which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

We will work together to make this classroom and syllabus accessible. Please let me know how I can support you by increasing accessibility and I, too, will proactively seek opportunities to make assignments, discussion, the classroom itself, and technologies accessible.

Cell phones, laptops, etc.

Cell phone usage during class is distracting, as are online shopping and developing your online persona. In our class, please enjoy distraction-free thinking. We will have a class break during which you can freely catch up on anything you missed. Please also refrain from computer use that is not directly related to the class. Should you choose to succumb to distraction, you will forfeit points earned for attending class on that day.

Honor Code & Pledge

In 1995 the UF student body enacted an [honor code](#) and voluntarily committed itself to the highest standards of honesty and integrity. When students enroll at the university, they commit themselves to the standard drafted and enacted by students.

The Honor Pledge

We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity. On all work submitted for credit by students at the university, the following pledge is either required or implied: On my honor, I have neither given nor received unauthorized aid in doing this assignment.

****Uncited use of AI, including ChatGPT and other LLMs, is a violation of the Honor Pledge****

Course Evaluations

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

[Note: I may update the syllabus if necessary through the course of the semester. If changes are made, the updated syllabus will be announced in class and on the course Canvas site.]



Postcard for Mazorra, Havana's Insane Asylum (1904)

Course Schedule

Thematic Unit	Week	Date	Class Topic & Format	Reading (to be completed by Tuesday class meeting unless otherwise noted)
What is History of Science, Technology, and Medicine?	Week 1	1/14	Introductions Lecture: What—if anything—is different about the History of Science, Technology, and Medicine?	* Marcy Norton, "Subaltern technologies and early modernity in the Atlantic World," <i>Colonial Latin American Review</i> 26, no. 1 (2017): 18-28 [Canvas, Read for Thursday]
		1/16	Discussion: Problems in histories of science	
Mapping & Counting	Week 2	1/21	Lecture: Mapping and Colonization: Cortés's Second Letter	* Browse the 16 th and 17 th century images at the website "Visual Culture in Spanish America, ca. 1520-1820" at https://vistas.ace.fordham.edu/
		1/23	Discussion: Colonization, decolonization, and mapping	* Second Letter, Hernán Cortés to Charles V, <i>Cartas de Relación</i> [Canvas] * Barbara Mundy, "Mapping the Aztec Capital: The 1524 Nuremberg Map of Tenochtitlan, Its Sources and Meanings," <i>Imago Mundi</i> 50 (1998): 11-33 [Canvas] * Sylvia Sellers-García, "The Mail in Time: Postal Routes and Conceptions of Distance in Colonial Guatemala," <i>Colonial Latin American Review</i> 21, No. 1 (April 2012): 77-99 [UF Libraries or Canvas]
	Week 3	1/28	Lecture: Quipus and Incan Archaeology	* Frank Salomon, "The Unread Legacy: An Introduction to Tupicocha's Khipu Problem, and Anthropology's," in Salomon, <i>The Cord Keepers: Khipus and Cultural Life in a Peruvian Village</i> (Duke University Press, 2004). [UF Libraries or Canvas]
		1/30	Discussion: Subaltern technologies & their study	* Listen: " Harvard Student Cracks Incan Code, " <i>All Things Considered</i> on NPR, Dec. 28, 2017. * Reread Marcy Norton, "Subaltern technologies and early modernity in the Atlantic World," <i>Colonial Latin American Review</i> 26, no. 1 (2017): 18-28 [Canvas]

Thematic Unit	Week	Date	Class Topic & Format	Reading (to be completed by Tuesday class meeting unless otherwise noted)
Animals & Plants	Week 4	2/4	Lecture: Early colonization and discovery of natural wonders and resources	* Daniela Bleichmar, <i>Visual Voyages: Images of Latin American Nature from Columbus to Darwin</i> , Introduction and Chap. 1, 2 & 3
		2/6	Debate 1	
	Week 5	2/11 2/13	Field trip to Florida Museum of Natural History Discussion: "Natural History" museums and collecting, Bleichmar images, and film	* Watch <i>Embrace of the Serpent</i> (2015) outside of class * Daniela Bleichmar, <i>Visual Voyages: Images of Latin American Nature from Columbus to Darwin</i> , Chap. 4 * Excerpts, Alexander von Humboldt, <i>Personal Narrative of a Journey to the Equinoctial Regions of the New Continent</i> [Canvas]
Food & Drugs	Week 6	2/18	Lecture: Food Science, Production, and other Consumables	* John Soluri, "People, Plants, and Pathogens: The Eco-social Dynamics of Export Banana Production in Honduras, 1875-1950," <i>Hispanic American Historical Review</i> 80, no. 3 (2000): 463-501. [UF Libraries or Canvas] * Paul Gootenberg, "A Forgotten Case of Scientific Excellence on the Periphery" <i>Comparative Studies in Society and History</i> , Vol. 49, No. 1 (Jan. 2007): 202-232 [UF Libraries or Canvas]
		2/20	Discussion: The political and social impacts of delicious things	
Medicine & Public Health	Week 7	2/25	NO CLASS	* Marcos Cueto and Steven Palmer, <i>Medicine and Public Health in Latin America: A History</i> , Introduction, Chaps. 1 & 2. * Pablo Gómez, "Incommensurable Epistemologies? The Atlantic Geography of Healing in the Early Modern Black Spanish Caribbean," <i>Small Axe: A Caribbean Journal of Criticism</i> (2014) 44: 95-107 [Canvas]
		2/27	Debate 2	

Thematic Unit	Week	Date	Class Topic & Format	Reading (to be completed by Tuesday class meeting unless otherwise noted)
	Week 8	3/4 3/6	Lecture: Public Health Discussion: The Politics of Health	* Marcos Cueto and Steven Palmer, <i>Medicine and Public Health in Latin America: A History</i> , Chaps. 3 & 4. * Cheasty Anderson, "South-South Cooperation as a Cold War Tonic: Cuban Medical Diplomacy to Sandinista Nicaragua, 1979-1990," <i>Peripheral Nerve: Health and Medicine in Cold War Latin America</i> [UF Libraries or Canvas] Midterm paper due on Thursday, Mar. 6 by midnight
Eugenics	Week 9	3/11 3/13	Lecture: Late colonial and national eugenics Discussion: eugenics as nationalist racial thought	* Nancy Leys Stepan, <i>The Hour of Eugenics</i> , Introduction, Chap. 1-2

Thematic Unit	Week	Date	Class Topic & Format	Reading (to be completed by Tuesday class meeting unless otherwise noted)
	Week 10	3/25 3/27	Lecture: Vasconcelos and Mexican racial Science Discussion: Vasconcelos	* Nancy Leys Stepan, <i>The Hour of Eugenics</i> , Chap. 3-7 * Excerpts, José Vasconcelos, <i>The Cosmic Race/La Raza Cósmica</i> * Alexandra Minna Stern, “‘The Hour of Eugenics’ in Veracruz, Mexico: Radical Politics, Public Health, and Latin America’s Only Sterilization Law,” <i>Hispanic American Historical Review</i> 91, no. 3 (2011): 431-443. [UF Libraries or Canvas]
Disability	Week 11	4/1 4/3	Lecture: Disability in Latin America Debate 3	* David Carey Jr. and Heather Vrana, “Disability in Latin America’s Past: An Opening,” in <i>New Histories of Disability in Latin America</i> , ed. Vrana and Carey Jr. [Canvas] * Cristina Rivera Garza, “‘She Neither Respected nor Obeyed Anyone’: Inmates and Psychiatrists Debate Gender and Class at the General Insane Asylum La Castaneda, Mexico, 1910-1930,” <i>Hispanic American Historical Review</i> 81, nos. 3-4 (2001): 653-688.

Thematic Unit	Week	Date	Class Topic & Format	Reading (to be completed by Tuesday class meeting unless otherwise noted)
	Week 12	4/8 4/10	Lecture: Psychiatry and the State Discussion: Guatemala's Asilo de Alienados & the Syphilis Studies	<p>* Jennifer Lambe, "Revolutionizing Cuban Psychiatry: The Freud Wars, 1955-1970," in <i>Peripheral Nerve</i> [UF Libraries or Canvas]</p> <p>* Susan Reverby, "'Normal Exposure' and Inoculation Syphilis: A PHS 'Tuskegee' Doctor in Guatemala, 1946-1948," <i>Journal of Policy History</i> 23, no. 1 (January 2011): 6-28 [UF Libraries or Canvas]</p> <p>* Browse Letters and other materials from John C. Cutler at the National Archives website, here: <https://www.archives.gov/research/health/cdc-cutler-records></p> <p>* Browse Presidential Commission for the Study of Bioethical Issues, <i>Ethically Impossible: STD Research in Guatemala from 1946 to 1948</i>, September 2011 [Canvas]</p>
Computing & Engineering	Week 13	4/15 4/17	Lecture: Computing and the Cold War Discussion: Computing and Human Rights	<p>* Maj. Henry C. Hoffmann, III, "Special Action Force in Latin America," <i>The Military Engineer</i> 59, no. 387 (Jan.-Feb. 1967) [UF Libraries or Canvas]</p> <p>* Eden Medina, "Designing Freedom, Regulating a Nation: Socialist Cybernetics in Allende's Chile," <i>Journal of Latin American Studies</i> 38, no. 3 (Aug. 2006): 571-606. [UF Libraries or Canvas]</p> <p>* "Compromised encryption machines gave CIA window into major human rights abuses in South America," <i>Washington Post</i> Feb. 17, 2020 [Washington Post website or Canvas]</p> <p>Podcast due on Tuesday by midnight</p>
Wrap Up	Week 14	4/22	Wrap Up Discussion and Podcast presentations	Podcast presentations in class on Tuesday
<p>Final papers will be due by email at the beginning of the exam period assigned by the university (May 1, 2025, at 10am).</p>				