



HIS 250 / BIO 250
Beyond Henrietta Lacks
Race and Medicine in 20th Century America
Course Syllabus

SAMPLE SYLLABUS

Required Readings

1. Wailoo & Pemberton, *The Troubled Dream of Genetic Medicine* (Johns Hopkins University Press, 2006)
2. Weekly selection of short primary and secondary source readings (accessible through course website).
3. Weekly lab manuals with background information (accessible through course website).
4. *Concepts in Biology* (open education resource—OER), accessible here:
<https://open.umn.edu/opentextbooks/textbooks/concepts-of-biology>

Course Catalog Description

In 1951, Henrietta Lacks, a young African American woman from Baltimore died of cervical cancer. Tumor cells were taken from Lacks without her knowledge or consent. These cells, now known as HeLa cells, were the first immortal cell line grown in a laboratory, and they continue to contribute to medical discoveries today. This course explores the intersection of the history of medicine with social history in America, focusing particularly on the category of race. We will use a historical lens to discuss broader ethical questions about race and medicine, for example access to medical care and the use of human subjects in medical research. In lab, students will have the hands-on opportunity to investigate the connections between cell biology, modern medicine, and social and ethical questions. Lecture and laboratory meet separately each week. Must be concurrently enrolled in lab. Students may receive credit for only one of the following courses: HIS 250 or BIO 250. Prerequisites: ENG 111, Core Mathematics requirement, and BIO 171, BIO 175 or BIO 180; or permission of the Dean of the School of Liberal Arts. *Offered on an as-needed basis. This course fulfills the Core Distribution Natural Sciences and Mathematics requirement.*

Course Curricular Context:

The Core Distribution Series courses are core requirements for students in all majors.

Global Objectives for all Core Distribution Humanities Courses (HIS 250):

- To improve and develop college-level reading skills by reading closely, paraphrasing text and interpreting meaning.
- To improve and develop college-level writing skills by demonstrating coherent, clean and focused writing in formats appropriate to the discipline.
- To improve and develop college-level critical thinking skills by requiring students to identify the central issue/problem, key questions being asked, and the evidence that supports the conclusion.

- To demonstrate problem-solving and decision-making skills by integrating the learning from the course and applying it to a case or problem found in a real-world setting.
- To demonstrate awareness and understanding of global perspectives and/or diversity as it applies to the content of the course.
- To demonstrate an ability to locate, evaluate and ethically use relevant, reliable and appropriate sources of information in 200-level Core Distribution Humanities courses.

Global Objectives for all Core Distribution Natural Sciences and Mathematics Courses (BIO 250):

- To improve and develop college-level reading skills by reading closely, paraphrasing text and interpreting meaning.
- To improve and develop college-level writing skills by demonstrating coherent, clean and focused writing in formats appropriate to the discipline.
- To improve and develop college-level critical thinking skills by requiring students to identify the central issue/problem, key questions being asked, and the evidence that supports the conclusion.
- To demonstrate an ability to analyze and organize data.
- To demonstrate problem-solving and decision-making skills by integrating the learning from the course and applying it to a case or problem found in a real-world setting.
- To demonstrate an ability to locate, evaluate and ethically use relevant, reliable and appropriate sources of information in 200-level Core Distribution Natural Sciences and Mathematics courses.

Additional Course Objectives for HIS/BIO 250:

By completing this course, students will be provided an opportunity ...

- To recognize how knowledge is produced in the life sciences and medicine and how that has changed over time.
- To examine how social determinants of knowledge production (such as authority, access, vulnerability, inclusion, and exclusion) have shaped the dissemination and reception of biomedical ideas and practices.
- To analyze how conceptions of race have changed over time at the intersection of society and biology.
- To understand critical concepts in contemporary cell biology, molecular biology, and genetics as they relate to medicine, public health, and bioethics.
- To learn how practices of medicine historically have informed ethical and professional responsibility.

Course Grading

In this course, lecture and lab grades are combined.

Engagement	10%
Assignments	30%
Papers	30%
Midterm Exam	10%
Final Exam	20%

Course Requirements

1. **Engagement:** A robust community of learners requires the contributions of all members of the community. Students who are not actively engaged in the classroom discussions and activities either as active speakers or active listeners will be both missing learning opportunities and may lose engagement points. This grade will be calculated at the culmination of the course and will reflect the degree of sustained engagement in the course. Components of this grade will include but are not limited to: attendance, on-time arrival, attending office hours, offering questions and comments during class discussions, and completing the course evaluation. Actions which will result in the loss of points include but are not limited to: excessive absences, tardiness, and disengagement with class in the form, inappropriate technology usage, talking and sleeping.

2. **Assignments:** Assignments come in multiple forms including quizzes, homework, and in-class activities. Lab assignments will include weekly pre-lab quizzes (completed on MyCourses) and weekly in-class comprehension quizzes. In lecture, students will complete short, unannounced readings quizzes. These assignments may not be made up for credit, but the lowest two assignment grades will be dropped at the end of the semester.
3. **Papers:** Three papers will be assigned over the semester. One will deal with the history of the lab techniques and two will deal with broader themes in the history of medicine and race:
 - a. **Paper I:** Medicine as a Contested Space: Authority, Access, Vulnerability, Inclusion, and Exclusion
 - b. **Paper II:** Development of American Bioethics: From Tuskegee to Henrietta Lacks
 - c. **Paper III:** History of a Treatment: Development, Testing, Marketing, and Usage (also requires a poster)
4. **Midterm Exam:** The midterm, which will take place in lecture class, will evaluate students' understanding of essential material covered to date in both lecture and lab. It will include a mixture of multiple choice, matching, and true/false questions from course readings, lectures, lab activities, and discussions.
5. **Final Exam:** The cumulative final exam will evaluate mastery of the course content and progression on course learning goals. Like the midterm, the final will include material from both lecture and lab. It will include multiple choice, matching, and true/false questions, as well as short answer essays drawing upon course readings, lectures, lab activities, and discussions.

Course Outline

Please refer to the course website for a daily, detailed, and up-to-date list of readings and assignments.

Students should attend only their designated lab section. Lab section dates and topics are color-coded below as follows:

Lab Section #1 - Tuesdays

Lab Section #2 - Thursdays

Lecture Date	Topic	Readings and Major Assignments	Lab Date & Topic
UNIT I	Course Introduction and Overview		
Jan 23	Course Overview		Jan 22: Safety, Syllabus, & Big Bio Concepts
Jan 25	Syllabus Introduction	Census Activity: What is Race?	Jan 24: Safety, Syllabus, & Big Bio Concepts
UNIT II	Posing the Big Questions		
Jan 28	What is Race?	Humphreys, "Biology and Destiny"	Jan 29 – Section #1 Qualitative & Quantitative Accuracy & Precision Correlation vs. Causality Role of Controls
Jan 30	Why Study the History of Medicine? Part I	Humphreys, "Biology and Destiny"	Jan 31 – Section #2 Qualitative & Quantitative Accuracy & Precision Correlation vs. Causality Role of Controls
Feb 1	Why Study the History of Medicine? Part II	Ulrich, <i>A Midwife's Tale</i> (excerpts)	
UNIT III	Biology Becomes Destiny: Origins of Biological Ideas about Race		
Feb 4	Human Classification in the Enlightenment	Schiebinger, "The Anatomy of Difference" Fausto-Sterling, "Gender, Race, and Nation" Concepts in Biology OER (excerpts)	Feb 5 – Section #1 Classification of Humans
Feb 6	Atlantic World Transfers	Jordan, <i>White Over Black</i> (excerpts) Gomez, <i>Experiential Caribbean</i> (excerpts)	Feb 7 – Section #2 Classification of Humans

Feb 8	Thomas Jefferson on Race and Biology	Jefferson, <i>Notes on the State of Virginia</i> (excerpts) Foster, et al., "Jefferson Fathered Slave's Last Child," <i>Nature</i>
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UNIT IV History of Medicine and Slavery

Feb 11	View from Above: Racializing Medicine	Cartwright, "Report on Diseases of the Negro," 1851 Kenny, "A Dictate of Both Interest and Mercy" Braun, "Spirometry, Measurement, and Race in the Nineteenth Century" Stampp, <i>The Peculiar Institution</i> (excerpts) Concepts in Biology OER (excerpts)
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Feb 12 – Section #1
Spirometer and Calibration Lab

Feb 13	View from Above: Slavery and Experimentation	Sims, "Osteo-Sarcoma of the Lower Jaw," 1846 Sims, "On the Treatment of Vesico-Vaginal Fistula," 1852 Sims, <i>The Story of My Life</i> , 1884 C. Lee Buxton, Foreword to 1968 Edition of Sims' <i>The Story of My Life</i> Concepts in Biology OER (excerpts)
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Feb 14 – Section #2
Spirometer and Calibration Lab

Feb 15	View from Within: Slave Healing	Fett, <i>Working Cures</i> (excerpts) Schiebinger, <i>Secret Cures of Slaves</i> (excerpts)
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UNIT V Medicine, Race, and the Rise of Public Health

Feb 18	Presidents' Day – No Class	
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Feb 19 – Section #1
Agents of Infection & Methods of Disinfection

Feb 20	Public Health and Germ Theory	Pernick, "Eugenics and Public Health in American History" Jacobson v. Massachusetts, 1905 Concepts in Biology OER (excerpts)
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Feb 21 – Section #2
Agents of Infection & Methods of Disinfection

Feb 22 Health on American Frontiers: Native Americans and Colonial Peoples
Zitkala-Sa, *Autobiographical Account*
A.J. Chesley, "Is the Indian Susceptible to Health Education?" *AJPH* 1924.

Feb 25 Health and Racialized Immigrants
Cohn, "The Chinese and their Peculiar Medical Ideas," *Medical Record* 1892.
Knight, "The Detection of the Mentally Defective Among Immigrants," *JAMA* 1913.
Colbert, "Hookworm Disease among Mexican track laborers," *California State Journal of Medicine*, 1911.
Concepts in Biology OER (excerpts)

Feb 26 – Section #1
Simulation Experience
Positive Natural Selection vs. Negative Eugenic Selection

Feb 27 Eugenics I
Kevles, *In the Name of Eugenics* (excerpt)
Davenport, "Skin Color of Mulattoes"
Concepts in Biology OER (excerpts)

Feb 28 – Section #2
Simulation Experience
Positive Natural Selection vs. Negative Eugenic Selection

Mar 1 Eugenics II
Schufeldt, *The Negro: A Menace to American Civilization*, 1907 (excerpt).

UNIT VI Segregated Medicine in 20th Century America

Mar 4 Segregated Professions
Du Bois, *The Health and Physique of the Negro American*, 1906 (excerpt).
Flexner, "The Medical Education of the Negro," *Report on Medical Education* 1910 (excerpt).
Boyle, "A Comparative Physical Study of the Negro," *Journal of the National Medical Association* 4, 1912, 124-30.
Vandervall. Some problems of the colored woman physician.
Woman's Med J 1917; 27:156-158

Mar 5 – Section #1

Test Subjects Lab:
Introducing Animal Models
and Cell Culture

Mar 6 Segregated Patients Walter White, "Death of a Citizen,"
from *A Man Called White*, 1948.
Selections on Elsie Lacks from *The
Immortal Life of Henrietta Lacks*

Mar 7 – Section #2
Test Subjects Lab:
Introducing Animal Models
and Cell Culture

Mar 8 Midterm Examination **MIDTERM EXAMINATION**

Mar 11 Spring Break – No Class

Mar 13 Spring Break – No Class

Mar 15 Spring Break – No Class

UNIT VII Tuskegee and Guatemala: Development of Bioethics I

Mar 18 Tuskegee Overview Brandt, "Racism and Research: The
Case of the Tuskegee Syphilis
Study"
Rivers, "Twenty Years of Follow-up
Experience in a Long-Range
Medical Study," (1953)

Mar 19 – Section #1
Clinical Trials Dry Lab

Mar 20 Tuskegee and Guatemala *Ethically Impossible: STD Research in
Guatemala from 1946-1948*
(excerpt)
Frieden and Collins. "Intentional
Infection of Vulnerable
Populations in 1946-1948. Another
Tragic History Lesson." *JAMA* 304,
no. 18 (2010): 2063-2064.
Walter, "Human Experiments: First,
Do Harm." *Nature*

Mar 21 – Section #2
Clinical Trials Dry Lab

Mar 22 Tuskegee and Bioethics White-Johnson, Freddie. "[Making
Health Research Relevant—and
Less Feared—in the Mississippi
Delta.](#)" *Stat.* 18 April 2018.

UNIT VIII Henrietta Lacks: Development of Bioethics II

Mar 25 Biography of Henrietta Lacks Skloot, *The Immortal Life of Henrietta
Lacks*, Chapters 2 & 3.

			Mar 26 – Section #1 Cell Culture Lab
Mar 27	Implications for Cancer Research and Biomedicine	Carpio, “The Good, the Bad, and the HeLa” Skloot, <i>The Immortal Life of Henrietta Lacks</i> , Chapters 4 & 7 Concepts in Biology OER (excerpts)	
Mar 29	Implications for Bioethics	Skloot, <i>The Immortal Life of Henrietta Lacks</i> , Chapters 20, 23, & Afterword Callaway, “Deal Done Over HeLa Cell Line” <i>Nature</i> , 2013.	Mar 28 – Section #2 Cell Culture Lab
UNIT IX Genes, Genomes, and Troubled Dreams			
Apr 1	Tay-Sachs Disease	Wailoo and Pemberton, <i>The Troubled Dream of Genetic Medicine</i> Concepts in Biology OER (excerpts)	
Apr 3	Cystic Fibrosis	Wailoo and Pemberton, <i>The Troubled Dream of Genetic Medicine</i> Concepts in Biology OER (excerpts)	
Apr 5	Sickle Cell Anemia	Wailoo and Pemberton, <i>The Troubled Dream of Genetic Medicine</i> Concepts in Biology OER (excerpts)	Apr 2 – Section #1 Population Distribution Data Analysis and Mechanisms of Disease
			Apr 4 – Section #2 Population Distribution Data Analysis and Mechanisms of Disease
UNIT X Cultures of Medicine in Postwar America			
Apr 8	Crisis of Medical Authority		
Apr 10	Parallel Medical Cultures	Alondra Nelson, <i>Body and Soul</i> (excerpts)	
Apr 12	Radical Rejection of Medical Science		Apr 9 – Section #1 Dry Lab: Reading a Scientific Paper vs. Reading Popular Medicine
			Apr 11 – Section #1

UNIT XI Race, Marketing, and Big Pharma

Apr 15 Patriot's Day – No Class

Apr 16 – Section #1
Isolating DNA

Apr 17 Pharmaceutical Marketing

Apr 18 – Section #2
Isolating DNA

Apr 19 Case Study: *Evans v. Lorillard* Tobacco Control Legal Consortium, "Evans v. Lorillard: A Bittersweet Victory Against the Tobacco Industry"
"Lorillard Ordered to Pay \$81m Penalty," *Boston Globe*, 17 Dec. 2010.

UNIT XII From Race to Ancestry? Deconstructing Racialized Medicine

Apr 22 Social Constructivism and Race

Apr 23 – Section #1
Genetic Profile Lab

Apr 24 Human Genome Project I NIH, "All About the Human Genome Project (HGP)"
Concepts in Biology OER (excerpts)

Apr 25 – Section #2
Genetic Profile Lab

Apr 26 Human Genome Project II Collins, Francis. "What We Do and Don't Know about 'Race,' 'Ethnicity,' Genetics and Health at the Dawn of the Genome Era." *Nature Genetics Supplement* 36, no. 11 (2004): 513-515.

Apr 29 From Race to Ancestry Wells, *Journey of Man* (excerpts)
Chou, Vivian. "How Science and Genetics are Reshaping the Race Debate of the 21st Century." *Science in the News*. Harvard University.
Concepts in Biology OER (excerpts)

Apr 30 – Section #1
Project Presentations

May 1 Personalized Medicine and Designer Babies Pray, Leslie A. "Embryo Screening and the Ethics of Human Genetic Engineering." *Nature Education* 1, no. 1 (2008): 207.

Simmons, Danielle. "Genetic Inequality: Human Genetic Engineering." *Nature Education* 1, no. 1 (2008): 173.

May 2 – Section #2
Project Presentations

May 3 Final Exam Review

FINAL EXAMINATION: WEEK 15
Monday, May 6 @ 1:00-3:00pm