

Phase 1 Elective Description

Campus: Northeast (Grand Forks)

Department: Biomedical Sciences

Elective/Experience Title: HeLa – The Mother of Modern Science

Course Number: MED 9601-04

Location of Elective: Virtual

Preceptor(s): Amanda Haage, PhD

Course Prerequisites: None

Period(s) Offered: Phase 1 2-week elective period

Revised Curriculum Phase(s): I

Number of students per period: 15

Elective Length in weeks: 2 weeks

Estimated # of Hours Required:

Face-to-Face/Zoom: 8 hours Independent/Asynchronous: 16hours

Will any Face-to-Face/Zoom hours occur on Weekends?

Yes ___ No X

Will any Face-to-Face/Zoom hours occur on after 5pm?

Yes ___ No X

Purpose: Henrietta Lacks, better known as HeLa to the science community, was a poor black woman who died of cancer in 1951. She is also immortal. Her cells were the first human cells to be grown outside the body, which may be the single most important technological advancement to modern biomedical science. This course will integrate discussions of her life and family, modern cancer research, historical and current health disparities, and the ethical implications around human experimentation.

Objectives: Following successful completion of this elective, the student will be able to:

1. Summarize basic biological concepts of cell theory and genetics (Competency 2.2)
2. State how normal biology is co-opted to develop cancerous cells (Competency 2.2)
3. Summarize how cancer diagnosis and treatment presented in “The Immortal Life of Henrietta Lacks” is different from current practice. (Competency 2.8)
4. List multiple examples of current cancer research projects (Competency 1.6)
5. List multiple examples of ethical violations in the history of medical research (Competency 1.6, 5.6)
6. State the relationship of ethical violations in medical research to social determinants of health (Competency 2.8, 2.9)
7. Generate a description of how personal identities and culture influence an individual’s relationship to science and medicine (Competency 2.9)
8. Summarize the historical and contemporary influence that journalists writing about science have had on public perception and understanding of the subject (Competency 2.8, 2.9).

Instructional Activities: During this elective, the student will be involved in/experience:

1. Reading “The Immortal Life of Henrietta Lacks” by Rebecca Skloot.
2. Group discussions.
3. Guest speaker presentations by the following individuals 1) a hospice nurse, 2) current cancer researchers, 3) an IRB representative on modern human experiment ethics, and 4) a family counseling expert in cancer diagnoses
4. Writing a position paper using the following prompt and relating it to current examples: Discuss the historical and contemporary influence that journalists writing about science have had on public perception and understanding of the subject. Why do you think science reporting is often sensationalized? Why is it important for science reporting to be accessible? How has fear or lack of understanding influenced public policy relating to science?

Criteria for Grading: During and following this elective, the preceptor will:

1. Utilize the standardized UNDSMHS phase I elective evaluation form.
2. By direct observation during group discussions, evaluate the student’s ability to fulfill objectives #1-7.
3. By direct evaluation of student’s written work evaluate their ability to complete objective #8.

Grading for this elective is Satisfactory/Unsatisfactory. Students who receive an unsatisfactory grade for the elective will be required to remediate the elective as per criteria set forth by the elective director(s) and in consultation with Assistant Dean for Medical Education.