

Science and the Modern World

Thinking Philosophically about Health, Disease, and Science



What is science? What are health and disease? In this class we will explore some answers to these questions. This class should be viewed as an introduction to the history and philosophy of science, in particular, to the history and philosophy of medicine. The goal is to help students understand various philosophical and scientific concepts, as well as help develop the skill of thinking critically about science.

This class consists in three units. The first unit is an introduction to the history and core concepts of the history and philosophy of science. The second unit concerns the history of disease and focuses primarily on two historical case studies. The third and final unit builds upon the previous two units, and focuses on the history and philosophy of medicine, especially concerning the concepts of health and disease.

This class requires a lot of reading, some of which is very difficult. I expect you understand the basic arguments and points being made by the authors. Attending lecture is therefore essential!

For each reading assignment, I suggest you try to do the following three things:

1. Write down the overall structure and conclusion of the reading. This shouldn't be full of details, but should be a mere sketch or outline of what you read. This will help you remember what the reading was about!
2. Locate one or two main arguments and briefly write down their premises and conclusions. Then think about the following questions: Is the argument convincing? Why or why not? How would you evaluate the argument?
3. Write down all the terms you don't understand and look up their definitions. Write down any confusions and questions you have about the reading, and bring them to class so that we might discuss them and dispel any confusion.

Required Reading Materials

- Jacalyn Duffin (2005), *Lovers and Livers: Disease Concepts in History*: **LL**
- Peter Godfrey-Smith (2003), *Theory and Reality*: **TR**
- Caplan, Engelhardt, and McCartney (1981), *Concepts of Health and Disease* (collection): **HD** (available online in pdf format, note the bookmarks!)

Grading

Scale (all assignments)

96-100 = A, 92-95 = A-, 88-91 = B+, 84-88 = B, 80-83 = B-, 76-79 = C+, 72-75 = C, 66-71 = C-, 62-65 = D+, 55-61 = D, 0-54 = F

Quizzes (40%)

Over the course of the term there will be 8 quizzes. These short quizzes (no more than 5-10 questions) will test concepts and vocabulary from the readings. If you don't know the meaning of a term, **LOOK IT UP** or **ASK ME**. Each quiz will test ONLY the material covered since the previous quiz, they will not be cumulative. These quizzes will be scantron multiple choice tests. I will drop the lowest 2 scores, so no make up exams will be given (barring exceptional circumstances).

Exams (60%)

Over the course of the term there will be 3 exams (20% each). These will be longer tests taking up a full class period. Each test is cumulative, and will test vocabulary and concepts from the entire course so far. Anything covered is therefore fair game! These exams will be scantron multiple choice tests. The last exam will take place during the final examination period.

Plagiarism

Academic dishonesty of any type, including plagiarism, is unacceptable at ETSU. Plagiarism is the representation of another person's work, words or ideas as your own. The cost of plagiarising starts with failing the course and may result in stiffer penalties.

If in any doubt about what constitutes plagiarism, students should consult the ETSU Student Handbook for a fuller, more specific discussion of academic integrity standards.

Disability services

Any student who may need a particular type of accommodation based on a disability should make an appointment to see me during my office hours. Faculty Accommodation Form from Disability Services authorizing your accommodations is preferred.

SCHEDULE OF CLASSES AND READINGS

(subject to change)

Introduction

Monday 8/27/12

What is Philosophy? What is HPS? What is Science? What is Medicine? What do they all have to do with each other? Intro to the history and philosophy of health and disease.

UNIT 1: INTRODUCTION TO HPS

Background 1

Wednesday 8/29/12

Readings to be discussed:

- **TR** Chapter 1.1-1.4

Background 2

Friday 8/31/12

Readings to be discussed:

- **TR** Chapter 1.5

****QUIZ 1****

****** MONDAY 9/3/12: NO CLASS ******

Induction and Confirmation 1

Wednesday 9/5/12

Readings to be discussed:

- **TR** Chapter 3.1-3.4

Induction and Confirmation 2

Friday 9/7/12

Readings to be discussed:

- **TR** Chapter 3.1-3.4

Popper and Falsification 1

Monday 9/10/12

Readings to be discussed:

- **TR** Chapter 4.1-4.6

****QUIZ 2****

Popper and Falsification 2

Wednesday 9/12/12

Readings to be discussed:

- **TR** Chapter 4.1-4.6

Naturalism 1

Friday 9/14/12

Readings to be discussed:

- **TR** Chapter 10.1-10.2

****QUIZ 3****

Naturalism 2 and Kuhn 1

Monday 9/17/12

Readings to be discussed:

- **TR** Chapters 10.3, 5.1-5.3

Kuhn 2

Wednesday 9/19/12

Readings to be discussed:

- **TR** Chapter 5.1-5.3

Kuhn 3

Friday 9/21/12

Readings to be discussed:

- **TR** Chapter 5.4-5.5

****QUIZ 4****

Kuhn 5

Monday 9/24/12

Readings to be discussed:

- **TR** Chapter 6.1-6.4

Kuhn 6

Wednesday 9/26/12

Readings to be discussed:

- **TR** Chapter 6.1-6.4

EXAM 1

Friday 9/28/12

****EXAM 1****

UNIT 2: THE HISTORY OF DISEASE

The Disease Game

Monday 10/1/12

No readings! We will play a game.

Thinking about Diseases 1

Wednesday 10/3/12

Readings to be discussed:

- LL Chapter 1, pp.4-36

Thinking about Diseases 2

Friday 10/5/12

Readings to be discussed:

- LL Chapter 1, pp.4-36

Thinking about Diseases 3

Monday 10/8/12

Readings to be discussed:

- LL Chapter 1, pp.4-36

****QUIZ 5****

Sociology of Science 1

Wednesday 10/10/12

Readings to be discussed:

- TR Chapter 8.1-8.4

******FRIDAY 10/12/12 NO CLASS******

Sociology of Science 2

Monday 10/15/12

Readings to be discussed:

- TR Chapter 8.1-8.4

Lovers 1

Wednesday 10/17/12

Readings to be discussed:

- LL Chapter 2, pp.39-77

****QUIZ 6****

Lovers 2

Friday 10/19/12

Readings to be discussed:

- LL Chapter 2, pp.39-77

Lovers 3

Monday 10/22/12

Readings to be discussed:

- LL Chapter 2, pp.39-77

Science Studies 1

Wednesday 10/24/12

Readings to be discussed:

- TR Chapter 9.1-9.2

Science Studies 2

Friday 10/26/12

Readings to be discussed:

- TR Chapter 9.3-9.5

Science Studies 3

Monday 10/29/12

Readings to be discussed:

- TR Chapter 9.3-9.5

Livers 1

Wednesday 10/31/12

Readings to be discussed:

- LL Chapter 3, pp.81-127

****QUIZ 7****

Livers 2

Monday 11/5/12

Readings to be discussed:

- **LL** Chapter 3, pp.81-110

******FRIDAY 11/2/12 NO CLASS******

Livers 3

Wednesday 11/7/12

Readings to be discussed:

- **LL** Chapter 3, pp.81-110

EXAM 2

Friday 11/9/12

****EXAM 2****

UNIT 3: PHILOSOPHY OF MEDICINE

Explanation 1

Monday 11/12/12

Readings to be discussed:

- **TR** Chapters 13.1-13.2

Explanation 2

Wednesday 11/14/12

Readings to be discussed:

- **TR** Chapters 13.3-13.4

******FRIDAY 11/16/12 NO CLASS******

ASSIGNMENT: Read the longer article to be discussed the following week. Make sure to take notes, and write down any important concepts.

The End(s) of Medicine 1

Monday 11/19/12

Readings to be discussed:

- **HD** Kass - Regarding the End of Medicine and the Pursuit of Health

The End(s) of Medicine 2

Wednesday 11/21/12

Readings to be discussed:

- **HD** Kass - Regarding the End of Medicine and the Pursuit of Health

******FRIDAY 11/23/12 NO CLASS******

The End(s) of Medicine 3

Monday 11/26/12

Readings to be discussed:

- **HD** Kass - Regarding the End of Medicine and the Pursuit of Health

The End(s) of Medicine 4

Wednesday 11/28/12

Readings to be discussed:

- **HD** Kass - Regarding the End of Medicine and the Pursuit of Health

****QUIZ 8****

Concepts of Health and Disease 1

Friday 11/30/12

Readings to be discussed:

- **HD** Engelhardt Jr - Concepts of Health and Disease

Concepts of Health and Disease 2

Monday 12/3/12

Readings to be discussed:

- **HD** Engelhardt Jr - Concepts of Health and Disease

Concepts of Health and Disease 3

Wednesday 12/5/12

Readings to be discussed:

- **HD** Engelhardt Jr - Concepts of Health and Disease

EXAM 3 (FINAL EXAM) REVIEW

Friday 12/7/12

- We will review for the final exam. Please prepare any questions you may have on any of the course material.

Exam 3 (final exam) for 004

Monday, December 10: 8:00 a.m. - 10:00 a.m.