HUEN 2843-001

The History of Western Medicine
Course Information and Assignments
Fall 2015: T R, 11:00 AM to 12:15 PM, in Fleming 103
Dr. Leland Giovannelli
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1. You will soon find that the history of western medicine is both fascinating and appalling. It includes leeches and ants, heroes and quacks, theories and cadavers, politics and religion—as well as the age-old mysteries of life and death. To get the most out of the course, read actively and contribute to daily discussion. Your insights and questions will help make the course a success.

2. Three required texts. We will read nearly every page of these, so I urge you to buy your own copies; they are available at the UMC Bookstore. I refer to these books by the words underlined below.
   a. Anderson, Robin L., Sources in the History of Medicine: Impact of Disease & Trauma. #0131913484.
   c. Giovannelli. Course Reader for History of Western Medicine.......... I have also placed one copy of each text on two-hour reserve at the Gemmill Engineering Library.

3. Course web page. Find other materials on D2L: from myCUinfo, the Desire2Learn link will take you to HUEN 2843-001. Allow 2-3 days for account activation; for other D2L problems, call 735-HELP. Late registrants, waitlisted students and auditors: send me an e-mail, so I can send you the first D2L files.

4. Assessment.
   a. Participation: 10%. This starts with solid preparation, so that you can participate effectively in class discussion. Listen to others, engage with them, ask questions, give answers and explanations, etc.
   b. Quizzes: 15%. Be ready for weekly unannounced quizzes on both original and secondary sources.
   c. Essays: 30%. You will write three essays, each worth 10%. In the first two (1.5 – 2.5 pp.), will analyze original sources, following my detailed prompts; you will be able to rewrite these. Your final essay (3.5 – 5.5 pp.) will either (a) analyze a modern medical issue in the context of an original text we have read, or (b) systematically address your changed views of medicine. In weeks 12-15, meet with me to identify and develop the topic for your final essay. Note item 7, below, to avoid inadvertent plagiarism.
   d. Group presentation: 10%. You and two partners will give a PowerPoint presentation on a topic/date I will provide; meet with me at least one day before presenting. See directions in the Course Reader.
   e. Oral mid-term exam: 15%. This is a 45-minute oral test in Week 6; sign up with a partner.
   f. Comprehensive final exam: 20%. This will include multiple choice, true-false, short answers, and short essays. I will give it on Monday, December 14th, from 1:30 to 4:00 PM in our classroom. Check your exam schedules now to ensure that you do not have three exams in one day.
   g. Absences. This course meets only twice per week, so I grant only one unexcused absence. Serious illness, emergencies, and religious obligations are all excused absences. Please keep me informed.

5. Contacting me. Use e-mail (Leland.Giovannelli@colorado.edu), phone (2-0235), or visit my office: Lesser House 202, 2501 Colorado (north of the DLC, on the NW corner of Colorado and Regent). My fall office hours: by appointment or _______________________.
6. Campus policies on Classroom Behavior and on Discrimination and Harassment enjoin the respect that is integral to my courses. See http://www.colorado.edu/policies/student-classroom-and-course-related-behavior and http://www.colorado.edu/institutionalequity/ for these policies.

7. Honor Code and Academic Integrity. As a CU student, you have agreed to abide by the Honor Code: you will not submit another person’s work as your own, and you will not help anyone else do this. Infractions include cheating on tests, copying homework from another student, letting your homework be copied, and wholesale mining of secondary sources for phrases and/or ideas. Ask me if you have any questions about this matter, and review the Honor Code policy at http://honorcode.colorado.edu/.
   a. High school vs. college. Perhaps in high school, you appropriated arguments or sentences by “putting them into your own words.” At the college level, this counts as plagiarism—even with a citation!
   b. My classes are grounded in a spirit of mutual trust. If you cannot meet a deadline, tell me, and I will accept your late assignment. To be fair to other students, I will dock a few points, but it is far better to lose a few points than to take an illicit short-cut!
   c. If I detect plagiarism of any kind, I will report it to the Honor Code Committee. I will give a zero to the quiz, essay, or test; I have the right to give a failing semester grade. The Honor Code Committee might recommend expulsion from CU, but that is not my decision.

8. Disabilities and/or religious obligations. If you anticipate any issues because of these, or for any other reasons, please speak to me without delay so that I can make accommodations. See campus policies at http://www.colorado.edu/policies/observance-religious-holidays-and-absences-classes-and-or-exams and http://www.colorado.edu/disabilityservices/

Schedule of Assignments

WEEK I.
On Tuesday, 8/25, we discuss themes of the course, your interests and expectations, texts on scientific process, Baconian vs. Cartesian principles, and how to read an original source. I will introduce the course materials and preview the readings for Thursday.

For Thursday, 8/27. Paleopathology. Do all of the following before class on Thursday, 8/27.
1. Note: you will always have reading homework, whether hard copy or on-line. Annotate your texts and/or take reading notes; answer questions in your notebook. For more tips, see Course Reader.
2. Syllabus. Skim this and choose your top three PowerPoint topics. I will collect them in class.
3. Reader, pp. 4-7.
4. D2L: find articles and links on our D2L homepage.
   a. In the Magner file, read Prehistoric Medicine. Note the “universal themes” listed from 12b to 13t; they will keep coming up throughout the semester.
   b. Other links—primarily on Ötzi, the Ice-Man.
5. Anderson. Reading an article in this text means: reading Anderson’s introduction to it, understanding its context, identifying its thesis, critiquing its argument, and noting interesting features.
   a. pp. 1-2, Introduction and Timeline. These dates are not to memorize; use them for reference.
   b. pp. 3-7, “Can Paleopathology Provide Evidence for Compassion?”
   c. From the article “What Did Our Ancestors Eat?” (pp. 10-16), read everything but the two sections entitled Drought, Famine, and Cyclical Starvation and Poorer and Richer. In those two sections, read only the last line.
   d. Read one of these two articles. You (and the other students who have read the same article) will help explain article X to the students who read article Y, and vice versa.
      i. pp. 7-10, “Cranial Surgery in Ancient Peru.” Critique Asenjo’s claim in the last paragraph.
ii. Selections from “Disease in Antiquity: The Case of Cancer.” Start on p. 16; read through the bottom of first column of p. 18; then read from p. 19, second column, to end of article.

e. Reflect on the questions on pp. 20-21; jot short answers to #3 and to one other question (your choice), and be ready to discuss these with your neighbor in class. I will not collect these.
f. Know these terms from Anderson: coprolites, ergotism, paleopathology, spina bifida, trephining = trepanning. From Magner: dreckapothecary, doctrine of signatures.

WEEK II.

For Tuesday, 9/1. Egypt and Babylonia.

1. D2L
   a. Magner file: Ancient Egypt. Read to the very end of p. 33.
   b. Other links, including a prosthetic toe from ancient Egypt.

2. Anderson. Selections from Chapter Two:
   a. pp. 22-34, including intro, timeline, original sources (The Bible and two papyri), and a chart on the ten plagues of ancient Egypt.
   b. pp. 34-41, selections from “Babylonian Medicine, Managed Care…”
      i. p. 34 through p. 37, col. 2: stop at For a comparable economic….
      ii. p. 38, start in col 1 (In today’s terms): stop in col. 2 (Administrative Division of Labor).
      iii. p. 39, from Patient Rights and Satisfaction through to the end on p. 42.

3. Reflect on all questions on pp. 42-43; write a short answer for question 4.

d. Vocabulary to know: Hansen’s disease, mandible, mandragora, Materia Medica, mycotoxins, phthisis = phthysis, trichothenes.

3. Bynum, pp. 1-4. Study Bynum’s chart on p. 2, trying to understand the conceptual frameworks of the various epochs he describes. Be able to discuss the differences between these.

For Thursday, 9/3. Hellenic Greece and Hippocrates.

1. D2L
   a. Magner file. Hellenic Greece, from very top of p. 70 to middle of p. 76.
   b. Other links, including ancient images of physicians.

2. Bynum, pp. 5-14, on the Hippocratic tradition.

3. Reader, pp. 9-12, Ancient Greece: Selections from the Hippocratic Corpus.

4. Anderson: selections from Ch. 4.
   b. pp. 70-74, two Hippocratic texts. Answer question 3 on p. 84. Contrast this selection from On the Sacred Disease with the one in the Reader. Assess the differing goals of the two editors.
   c. Read one of these two articles:
      i. pp. 74-76, “Chest Trauma during the Battle of Troy.” How do these descriptions contribute to the poem? Do they, for example, heighten drama or glory?
      ii. pp. 80-83, “Sports and Medicine in Ancient Greece.” To what extent does modern sports medicine resemble the practices in Ancient Greece?
   d. Vocabulary to know: humors, oxymel, bilious, quinsy.

WEEK III.


3. Reader, pp. 13-21, three selections on Ancient Greece:
   b. pp. 16-17, Giovannielli’s Introduction to Aristotle. Know how Aristotle’s views emerged from his predecessors. What is Plato’s challenge to science—and what relevance does this have today?
c. pp. 18-21, *Selections from Aristotle*. Know Aristotle’s views on nature, final cause, and natural vs. artificial things. Explain the steps of his argument on bees. Note your questions and insights.

d. Did the secondary texts give you a good preview of the Hippocratic texts? How did reading the original texts enhance or alter your understanding of the Hippocratic tradition? Really explore these questions. See suggestions on reading original sources (in *Tips for Success*, p. 4 in Reader).

e. Vocabulary to know from Aristotle: teleology, teleological; final cause, material cause, efficient cause, formal cause; ether.

4. D2L:
   a. Magner file. *Hellenistic Greece*. Note especially Herophilus and Erasistratus. Look closely at the paintings in this article (painted ~2 millennia after the events).
   b. D2L, other links, including maps of Alexander’s Empire.

**For Thursday, 9/10.** Roman medicine, featuring Galen.

1. D2L
   a. Magner file. *Medicine in Ancient Rome*. This includes pre-Galenic and Galenic medicine.
   b. Other links, including maps of the growth of the Roman Empire.

2. Bynum, pp. 14-18. Read this several times; use p. 15 to label the drawing on p. 16.

3. Reader, read *Ancient Rome: Selections from Galen*. We will discuss themes in the two case histories, Galen’s character, and Galen’s understanding of human physiology and medical education.

4. Anderson:
   a. pp. 85-87 (intro and time-line); be able to recognize Celsus, Dioscorides, Frontinus, Soranus.
   b. pp. 87, 88, 90: Soranus. Read only the first and last sections. Look up *Apgar test* on the internet.
   c. pp. 90-93: Galen.

   d. Read one of these two articles and be ready to discuss question 3 or question 4 on p. 106.
      i. From the article starting on p. 93, on Roman alcoholism, read these selections: in *The Early Temperate Period*, read the first three and last two paragraphs; in *Period of Increasing Use of Wine*, read first three and last four paragraphs; in *The Rise of Alcoholism...*, read only the first paragraph; then read from *Widespread Alcoholism* to the end of the article.
      ii. pp. 98-101, Roman military medicine.

   e. Vocabulary to know: valetudinarium, venesection.

**WEEK IV.**

**For Tuesday, 9/15.** Galen; Islamic medicine.

1. Anderson and Reader, re-read selections by Galen. Note questions and ask them in class.

2. D2L
   b. Links and images, including maps of the rise of Islam.
   c. Directions for writing assignment due Thursday.

3. Anderson:
   a. Read first two paragraphs on 130; timeline until 1492 (pp.131-2). Names to know (be able to recognize their Arabic transliteration): Rhazes, Albucasis, Avicenna, Maimonides.
   b. Read one of these two articles, found in pp. 139-146:
      i. pp. 139-142, “Dentistry in the Bible, Talmud, & Writings of Moses Maimonides.”
      ii. pp. 143-146, “Insanity and its Treatment in Islamic society.”


**For Thursday, 9/17.** The Islamic tradition; Introduction to Medieval Europe.

1. Submit Essay #1 on Galen.

2. D2L links.
3. Reader, pp. 26-27, three selections from the Islamic world.

4. Anderson:
   a. *The Canon on Medicine*, by Ibn Sina, i.e., Avicenna. This starts on p. 133. Scan the headings; then read about 1.5 pages of text—your choice of paragraphs.
   b. p. 138, study the instruments of Al-Zahrawi (Albucasis).
   c. Reflect on questions 4 and 5, p. 153.
   d. Vocabulary to know: endemic, epidemic, non-naturals, theriac.

**WEEK V.** Schedule a time during Week VI for an oral exam with partner. The exam will cover material through Week V and will be held in my office: Lesser House 202, 2501 Colorado Ave.

**For Tuesday 9/22.** Medieval Europe.

3. Anderson:
   a. pp. 107-109 (intro/timeline); note Dame Trotula, Black Death, first printing of Galen, techniques in teaching anatomy, Great Pox.
   b. pp. 23-24, on leprosy in the *Bible*.
   c. pp. 111-113, on leprosy in Medieval Europe. Be ready to discuss question 1 on p. 42.
   d. p. 119, Chauliac: read from beginning to the very bottom of p. 120, col. 2. Then skip to *Concerning Fracture of the Forearm and its Bones*, and read from there to the end of the article.
   e. pp. 127-128, John Clynn.
   f. Read one of these two articles:
      i. Selections from “Fracture Trauma in a Medieval British Farming Village.” Start on p. 113; stop at bottom of p. 117, col. 2; start on 118, col. 2, at *The urban males*... and read to end.
   g. Vocabulary to know: ossification, osteoporosis.
4. Reader, read *Medieval Europe: Bartholomew Anglicus*. Make connections between this text and Chauliac (on the nature of a physician), and between this text and the texts on leprosy.

**For Thursday, 9/24.** Voyages of Discovery and the Renaissance.

1. Anderson:
   a. p. 130, start at *Halfway around the world*... and continue to bottom of 132.
   b. pp. 146-148, original sources on the Spanish conquest.
   c. From pp. 148-153, a secondary source on Aztec public health, read the first five paragraphs, and then pp. 152-153. From the skipped section, read one or two paragraphs that look interesting.
   d. pp. 155-156, bottom of page; know Gutenberg, Paracelsus, Vesalius; be able to recognize Servetus.
   f. Vocabulary to know: iatrochemistry, iatrochemist, puerperal.
2. D2L, texts and links, including maps of the Voyages of Discovery.

**WEEK VI.**

**For Tuesday, 9/29.** Renaissance heroes: Vesalius and da Vinci.

1. Bynum, pp. 27-33, on anatomy, the printing press, and Vesalius.
2. Anderson:
   a. Review pp. 158-160; then read pp. 160-161, on Vesalius.
3. D2L, links and texts, including a PowerPoint on perspective.
For Thursday, 10/1. Renaissance method: Ambroise Paré; Bacon and Descartes.
1. Reader, pp. 36-41, 16th Century France: selections from Ambroise Paré and Scientific Revolution: Francis Bacon and René Descartes.
2. D2L selections, including a worksheet on Bacon and Descartes.
3. Anderson:
   a. pp. 158-163, i.e., the full article by Faria.
   b. pp. 174-177: “Why Can’t a Woman Be More Like a Man?” a scholarly article on the Renaissance belief in the biological inferiority of women.
   c. Read one of these two articles:
      i. pp. 194-197, on sweating sickness, a mysterious disease in Renaissance England.
      ii. Selections from pp. 197-202, “Poisons of the Past,” which claims that purported ‘hexes’ might have been the consequence of ergotism. Read from beginning to 199, col. 1, stopping at The timing of witch persecutions... On p. 200, start at One reason Essex..., and stop on the same page at Similar symptoms... On p. 201, start at Generally, the victims of... and stop on the same page at Also, witch persecutions... On p. 202, read last two paragraphs of the article.

WEEK VII.

For Tuesday, 10/6. Scientific Revolution and William Harvey.
2. Anderson, p. 168, read only the introduction to William Harvey.
4. D2L: in Magner file, read Ibn al-Nafis. See links, including pictures of the circulatory system. Read the description of Essay #2, due next Tuesday.

For Thursday, 10/8. Smallpox, scurvy, and personalities.
1. Anderson:
   b. pp. 171-173 on smallpox.
   d. pp. 190-194 on scurvy.
2. D2L: links and images, with texts about or by various 18th century physicians.
3. Bynum, pp. 38-42, on enlightenment medicine, and also pp. 71-74 on plague and pox; start at the very bottom on p. 71
4. Reader, pp. 52-54, two different Early Eighteenth Century Selections: Montagu and Voltaire.

WEEK VIII.

For Monday, 10/13. Catching up.
1. Submit Essay #2.

For Thursday, 10/15. The rise of teaching hospitals.
1. Bynum, pp. 43-61, on medicine in the hospital.
2. Anderson, pp. 204-206, intro and timeline. No need to bring Anderson to class today.
4. D2L links, including a selection by Magner, and one by Laennec.

WEEK IX.

For Tuesday, 10/20. Public health in 19th century.
2. Bynum, pp. 74-90, on public health. Review his chart on p. 2, to get a sense of our location.
3. D2L, links, texts, and images.

For Thursday, 10/22. Anesthesia.
1. D2L texts and links, including a lively secondary text and an account of pre-anesthesia mastectomy.
2. Bynum, pp. 108m to 109m, which briefly mentions anesthesia.

WEEK X.
For Tuesday, 10/27. Women in medicine.
1. Anderson.
   b. pp. 204-208, intro/timeline.
   c. pp. 208-211, a selection from Florence Nightingale.
   d. Plan to discuss questions 1 and 5 on p. 228.
2. Reader, pp. 57-61: selections by Nightingale and Semmelweis.
3. D2L selections.

For Thursday, 10/29. Making medicine scientific: cells and germs.
1. Bynum. 91-107, on Pasteur and Koch.
4. D2L selections.

WEEK XI.
1. Anderson, pp. 204-208, intro and timeline.
2. Bynum, pp. 107-117, on making medicine and physiology scientific.
3. D2L selections, including an article that puts Pasteur’s work in a different light.

For Thursday, 11/5. Frontiers and fads.
1. Anderson: the frontiers.
   a. pp. 220-223, on Doctors of the American western frontiers.
   b. Read from one of these two articles; reading details TBA.
      i. Starting on p. 214, about disease in the American Civil War;
      ii. Starting on p. 223, about health efforts during the British occupation of India.
   c. Read from one of these two articles; reading details TBA.
      i. Starting on p. 240, about public health in Brazil.
      ii. Starting on p. 244, about yellow fever.
   d. Prepare questions 2 and 3 on p. 228.
   a. Read one of these two articles:
      i. Starting on p. 248, about the water cure.
      ii. Starting on p. 254, about neurasthenia.
   b. Be ready to discuss questions related to your reading (1, 2, and/or 5 on 260).
4. D2L selections.

WEEK XII.
For Tuesday, 11/10. The 20th century: health care changes again.
1. Bynum. 118-127, stopping at the top of the page.
2. Anderson, pp. 262-279: intro/timeline, hospitals, discoveries, the Tuskegee experiment, Nuremberg trials, and baby and child care.
3. Reader, pp. 68-70, Jerome’s *Three Men in a Boat*.
4. D2L selections.

For Thursday, 11/12. The 20th century epidemics.
3. Reader, pp. 71-73, Liljestrand’s *presentation speech for the Nobel Prize*.
4. D2L selections.

WEEK XIII.
For Tuesday, 11/17. 21st century problems.
3. D2L selections.

2. Optional: submit annotated rewrites (with the originals!) of WA#1 and/or WA#2 by the end of week XIII. I need both the original and the rewrite to judge your improvement. Please ANNOTATE your rewrite, or you will get no credit for your efforts. See directions on D2L.

WEEK XIV. Fall break and Thanksgiving vacation. Assignment TBA.

WEEK XV.
For Tuesday, December 1. TBA.

For Thursday, December 3. Trip to Special Collections.
►Meet in Norlin Library for display of rare books.

WEEK XVI.
Tuesday, 12/8.
Comprehensive review.

Thursday, 12/10.
Comprehensive review, cont’d.

Saturday, 12/10: Final paper due.

FINAL EXAM: Monday, Dec. 14, 1:30 p.m. - 4:00 p.m., in our classroom.

See next page for PowerPoint schedule and sign-up sheet. ..................
Powerpoint schedule

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<td>Oral exams this week.</td>
<td>Oral exams this week.</td>
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<td>12/01. TBA.</td>
<td>12/03. Norlin Library visit. (tentative)</td>
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1. Alcoholism. It goes back a long way. What does alcohol do to the human body? And why is it so addictive?
2. Plague. The disease known as the Black Death. 
4. Syphilis. This was the Great Pox. Where did it come from? And how has it changed?
5. Gout. A “life-style” disease—creating an excruciating pain in the extremities.
6. Giovanni Battista Morgagni. Elegant, refined, and one of the first proponents of autopsy, he was known throughout Europe for his insights into organ-based disease.
7. John Hunter. Inventive, curious, and unconventional, a surgeon who experimented on himself!
8. John Parkinson. He described the disease that bears his name—but he was also a geologist and a reformer.
9. Cholera. A disease, a death-map, a public water-source, and a solution. What really happened?
10. Florence Nightingale and Mary Seacole. Two very different women trying to aid soldiers in the Crimean War. Why do we know the former, but not the latter…?
11. Rabies. Mad dog!! This is the disease that made Pasteur famous.
12. Claude Bernard. Brilliant physiologist, worked on living animals, and married to an anti-vivisectionist!
13. Phineas Gage and Alexis St. Martin. Two men whose injuries gave the 19th century a “window” onto the body.
14. Malaria. The scourge of the tropics—spread by mosquitoes, but caused by something far smaller.
15. Polio. Crippling, wasting, and devastating. How was it transmitted? And how could it be prevented?

Please tear off this sheet and hand it in. If you are signing up as a group, submit one form with all names on it.

Name(s)________________________________________________________  ___________________________

1st  Topic number: __________  Topic title: ________________________
2nd  Topic number: __________  Topic title: ________________________
3rd Topic number: __________  Topic title: ___________________