

HISTORY 3D

The History of Medicine

Winter 2008

Course Information

Instructor

Dr. Robert G. Frank, Jr., Professor of Medical History and History, and Chief, Medical History Division, Department of Neurobiology, UCLA School of Medicine

Class Meetings

Mondays and Wednesdays, 3:30 - 4:45 pm in Royce 362. Students will find it both wise and advantageous to attend all class meetings. Sections will in addition meet once a week. The TAs are: Brad Fidler, Michael Weismeyer, and Bright Yuan.

		Day	Time	Location	TA
Sections:	1a	Tuesday	4:00-5:50	Bunche 3164	Yuan
	1b	Thursday	4:00-5:50	Royce 152	Yuan
	1c	Friday	1:00-2:50	Bunche 3178	Fidler
	1d	Friday	12:00-1:50	Public Policy 2242	Weismeyer
	1e	Tuesday	8:00-9:50	Bunche 2178	Weismeyer
	1f	Thursday	4:00-5:50	Rolfe 3115	Fidler

Examination Code # 08, Thursday, March 20, 8:00 - 11:00 am.

Nature of the Course

Almost all of the significant power of Western medicine to diagnose, prevent and treat disease has developed since the mid-eighteenth century. This course aims to present an analytic survey of the changes that have come over the European tradition of medicine--which includes medicine in America--since that time. Most of all, I'll emphasize how traditional procedures of diagnosis, surgery, disease prevention, drug therapy, and patient care have changed under the increasing

impact of “scientific” modes of investigation, so as to produce, by c. 1965, a form of medicine radically different from that practiced two hundred years before. Concomitant with this has been the development of medicine into a massive institutionalized form within society, with activities centering on the hospital, based upon the research laboratory, and incorporating elaborate epidemiological surveillance. The whole has become an enterprise that perceives and conceives of human disease, and its prevention and treatment, in ways that have profound impacts upon both public policy and individual lives. Finally, this period of more than two centuries has seen an enormous change in the kinds of diseases found in the developed world, with a corresponding decrease in the incidence of sickness and premature death. This course analyzes all of these developments.

Examinations, Papers, and Grades

Both the mid-term and the final examinations will be largely of the essay type, although each will have about one-quarter of the points in more factually-based short-answer formats (identifications, recapitulations). In all cases you will have a choice of questions to answer. The mid-term examination will count for about 15%, and the final examination for about 45%, of the grade in the course. The final examination will be cumulative.

Discussion and written work will be centered on the weekly sections. Written work will total about 12-13 typewritten pages, and will be based on the required reading and viewing in the course. This written work will be in the form of two essays, the first of which will be due in Week 4, and the second in Week 9. These papers will be directed by your TA and handed in during the section meetings; they will count for about 20% of the course grade. You will get more information about these essays from your TA.

An oral presentation in section of a historical research article will count for 5%. The final 15% of the course grade will be determined by participation in the work of the section, that is, by doing the readings in a timely fashion, and discussing them under the direction of your TA.

If a student shows significant improvement over the course of the quarter, those components of the grade that occur towards the end (such as the second paper and the final examination) will be given greater weight than the percentages described above.

Office Hours

Michael Weismeyer’s office is in Bunche Hall 2165, Bright Yuan’s is in Bunche 2207, and Brad Fidler’s is in Bunche 2207. Each of the TAs will announce his or her office hours in a handout that will be available in the first section meeting.

My office hours will be in Bunche Hall 5268, on Wednesdays after lectures, 5:00-6:00 pm, and on Thursdays, 3:30-5:00 pm. If either of these office hours is not possible, we can always meet by appointment; just come up after lecture to arrange a time, or send me an e-mail.

My e-mail address is rfrankj@ucla.edu. I'll always try to check e-mail at the end of the day, about 9:00 pm, although it might not be checked daily over the weekend.

Readings

The assigned readings in the course are very important in grasping the content of the course. They are designed to take about 6-7 hours each week over the span of the quarter. In some weeks the readings will take less time, in some more, so schedule yourself accordingly. Please try not to get behind, as the slower reader may find it difficult to catch up.

The greater quantity—although not intensity—of reading in the course will be in one secondary source, which is available for purchase in the ASUCLA Bookstore.

Roy Porter, *The Greatest Benefit to Mankind: A Medical History of Humanity*.

(New York: W.W. Norton, 1999) [Paperback]

Don't be put off by the length of the book. We will be reading selected parts, which will total perhaps 40-45% of the whole.

You will also utilize shorter primary and secondary sources, many of which will be used for more intensive reading in your discussion section. These will be available for downloading at the course website; after signing in, just click on "List of Links" at the top of the page to access the PDFs.

The films for viewing are designed to add historical texture and depth to the lectures and readings, as well as to provide possible points of departure for discussion sections.

Lecture Schedule

Week 1

Monday, Jan 7 **Course Themes and Scene-Setting: Medicine and Disease c. 1775**

Wednesday, Jan 9 **18th-Century Disease: Killer Smallpox and Its Conquest**

Week 2

Monday, Jan 14 **Enter the Stethoscope: Physical Diagnosis and the Paris Hospitals**

Wednesday, Jan 16 **Three-Dimensional Disease: From the Lesion to Cellular Pathology**

Week 3

Monday, Jan 21 **King Holiday: Online Films on Cholera and Typhoid Fever**

Wednesday, Jan 23 **Infection (or Heredity?) in the Industrializing City: Tuberculosis**

Week 4

Monday, Jan 28 **From Traditional Surgery to Anesthesia**

Wednesday, Jan 30 **Pasteur, Lister, and Antiseptic Surgery**

Week 5

Monday, Feb 4 **“One Germ/One Disease”:** Koch Finds Bacteriology

Wednesday, Feb 6 **Laboratories Produce Therapies: Drugs, Anti-Sera, and Vaccines**

Week 6

Monday, Feb 11 **MID-TERM EXAMINATION**

Wednesday, Feb 13 **The New Hospital: Expanded Surgery and Diagnostic Procedures**

Week 7

Monday, Feb 18 **Presidents’ Day: Online Films on Yellow Fever and Influenza**

Wednesday, Feb 20 **Vectors and Public Health: Malaria, 1880-1930**

Week 8

Monday, Feb 25 **Disease as Deficiency: Hormones and Diabetes, 1880-1930**

Wednesday, Feb 27 **Deficient Nutrition: Vitamins, Scurvy and Pellagra**

Week 9

Monday, Mar 3 **Treating Infections: Salvarsan, Sulfa Drugs, and Penicillin, 1905-1940**

Wednesday, Mar 5 **Viruses and Their Control by Vaccines: Polio**

Week 10

Monday, Mar 10 **Medicating the Mind: The Emergence of Biological Psychiatry**

Wednesday, Mar 12 **Medicine in Its Glory, c. 1965: Triumphs and Problems Ahead**

Thursday, Mar 20 **FINAL EXAMINATION**, 8:00 am - 11:00 am. [Exam Code 08]

Topics and Readings

All readings mentioned here, other than those in Porter, are available for downloading at the course website. Items listed for viewing are available as streaming video on a campus computer; the link is on the course website.

Week 1 January 7-11

Lectures: 1) Course Introduction & Medicine c. 1775; 2) Conquering Smallpox

Discussion: **Traditional Medicine and Its Approach to Preventing and Treating Disease**

Viewing: “Edward Jenner: The Man Who Cured Smallpox” (2007)

Reading: Roy Porter, *The Greatest Benefit to Mankind: A Medical History of Humanity*,
pp. 55-63, 245-277.

Hippocrates, *Prognostics and Epidemics* [c. 400 BCE] (selections)

Robert Reid, *Microbes and Men*, pp.9-14 [Montagu] and 15-25 [Jenner]

Edward Jenner, *An Inquiry into the Causes and Effects of the Variolae Vaccinae*
[1798], selections

Week 2 January 14-18

Lectures: 1) Physical Diagnosis and the Paris Hospitals; 2) Three-Dimensional Disease

Discussion: **Paris Medicine, Physical Diagnosis, and Changes in the Meaning of Pathology**

Readings: Porter, *Greatest Benefit to Mankind*, pp. 304-333.
René T.H. Laennec, *Treatise on Mediate Auscultation* [1816-1819], selections
Rudolf Virchow, *Cellular Pathology* [1856-1858], selections

Week 3 January 21-25

Lectures: 1) Films: Cholera and Typhoid Fever; 2) Tuberculosis in Industrializing Cities

Discussion: **Understanding and Fighting Disease in the 19th-Century City**

Viewing: “Bramwell: The Second Season.” Episode 4: “An Outbreak of Cholera” (1996)

“Typhoid Mary: The Most Dangerous Woman in America” (2004)

Readings: Porter, *Greatest Benefit to Mankind*, pp. 299-303, 397-427.

Reid, *Microbes and Men*, pp. 27-39 [Semmelweis]

J.N. Hays, “Tuberculosis and Poverty,” in *The Burdens of Disease: Epidemics and*

Human Response in Western History (1998)

John Snow, “The Principles on which the Treatment of Cholera Should Be
Based,” [1854]

Week 4 January 28-February 1

Lectures: 1) From Traditional Surgery to Anesthesia; 1) Pasteur, Lister, and Antiseptic Surgery

Discussion: **Changes in Surgery Through Anesthesia and Antisepsis**

Viewing: “The Great Moment” (1944) [discovery of anesthesia] OR

“The Story of Louis Pasteur” (1936)

Readings: Porter, *Greatest Benefit to Mankind*, pp. 277-281, 360-374.

Reid, *Microbes and Men*, pp. 41-55 [Pasteur] and 57-65 [Lister]

John C. Warren, "Inhalation of Ethereal Vapor for the Prevention of Pain in Surgical Operations." [1846]

Joseph Lister, "On a New Method of Treating Compound Fracture" [1867]

Week 5 February 4-8

Lectures: 1) Koch Finds Bacteriology; 2) Laboratory Drugs, Anti-Sera and Vaccines

Discussion: **The Nature, Benefits, and Effects of Laboratory Medicine**

Viewing: "Dr. Ehrlich's Magic Bullet" (1940)

Readings: Porter, *Greatest Benefit to Mankind*, pp. 428-454.

Reid, *Microbes and Men*, pp. 67-92 [Koch & Pasteur], 109-123 [Koch & Behring],

125-134 [Ehrlich]

Chapter 14, "World Fame: The Discovery of the Tubercle Bacillus" in Thomas

D. Brock, *Robert Koch: A Life in Medicine and Bacteriology* [1988]

Robert Koch, "The etiology of tuberculosis." [1882]

Week 6 February 11-15

Lectures: 1) Mid-Term Examination; 2) Surgery and Diagnosis in the New Hospital

Discussion: **The New Hospital for the Middle Class**

Readings: Roy Porter, *The Greatest Benefit to Mankind: A Medical History of Humanity*, pp. 375-388, 597-613.

Chapters 6 "The Promise of Healing: Science in the Hospital," and Chapter 8 "The Ward as a Classroom," in Charles E. Rosenberg, *The Care of Strangers: The Rise of America's Hospital System* (1987)

"Report on the Application of the New Photography [x-rays] to Medicine and

Surgery” (1896)

Week 7 February 18-22

Lectures: 1) Films on Yellow Fever and Influenza; 2) Malaria

Discussion: **Public Health and Scientific Medicine versus World Diseases**

Viewing: “The Great Fever” (2006) [yellow fever]

“Influenza 1918” (1998)

Readings: Roy Porter, *The Greatest Benefit to Mankind: A Medical History of Humanity*, pp. 462-492.

Margaret Warner, “Hunting the Yellow Fever Germ” (1985)

Margaret Humphreys, “The Mist Rises: Malaria in the Nineteenth Century” in *Malaria: Poverty, Race, and Public Health in the United States* (2001).

Week 8 February 25-29

Lectures: 1) Hormones and Diabetes; 2) Vitamins: Scurvy and Pellagra.

Discussion: **Discovering and Treating Deficiency Diseases**

Readings: Roy Porter, *The Greatest Benefit to Mankind: A Medical History of Humanity*, pp. 525-534, 551-570.

Banting, Best et al., “Pancreatic Extracts in the Treatment of Diabetes Mellitus.” (1922)

Michael Bliss, “Banting’s, Best’s, and Collip’s Accounts of the Discovery of Insulin.” (1982)

Joseph Goldberger, “Etiology and Prevention of Pellagra.”

Joseph Goldberger, “Experimental Pellagra.”

Week 9 March 3-7

Lectures: 1) Sulfa Drugs and Penicillin; 2) Viruses and Vaccines.

Discussion: **Individual Therapies and Prophylaxis: Triumphs and Potential Troubles**

Viewing: “A Paralyzing Fear: The Story of Polio in America,” (1998)

Readings: Roy Porter, *The Greatest Benefit to Mankind: A Medical History of Humanity*, pp. 454-461, 589-596.

Harry Dowling, “Penicillin,” in *Fighting Infection: Conquests of the Twentieth Century* (1977)

Chain, Florey, et al., “Further Observations on Penicillin” (1941)

Charles Fletcher, “First Clinical Use of Penicillin.” (1984)

Week 10 March 10-14

Lectures: 1) From the Asylum to Biological Psychiatry; 2) Medicine c. 1965: Reflections

Discussion: **Medicalizing Society -- Even the Mind**

Viewing: “One Flew Over the Cuckoo’s Nest” (1975) [R-rated] [optional]

Readings: Roy Porter, *The Greatest Benefit to Mankind: A Medical History of Humanity*, pp. 493-507, 520-524.

Edward Shorter, “The Second Biological Psychiatry” in *A History of Psychiatry: From the Era of the Asylum to the Age of Prozac* (1997)