

History 3B

HISTORY OF SCIENCE FROM NEWTON TO DARWIN

UCLA Spring 2008

Lecturer: William Clark, Tues + Thurs 2-3:15 PM, Perloff 1102

Office: Bunche 5276 / Hours: Thurs. 3:30-6:00 PM / Tel.: (310)-825-2013 / wyclark@ucla.edu

Teaching Assistants: Aimee Dowl, Brad Fidler, Adam Lawrence – Offices & Hours TBA

Grading: Midterm Exam (20%), Section Participation (30%), Final Exam (50%)

Required Texts:

Charles Darwin, *From So Simple a Beginning: Darwin's Four Great Books* (Norton, 2005)

Michael White, *Isaac Newton: The Last Sorcerer* (Perseus, 1999)

PDFs (on the class website):

Robert Darton, *Mesmerism and the End of the Enlightenment in France* (Harvard UP, 1968)

Benjamin Franklin et al., *Report on Animal Magnetism by the Royal Commission* (1784)

Anton Mesmer, *Dissertation on the Discovery of Animal Magnetism* (1779)

Isaac Newton, *Newton's Philosophy of Nature: Selections from his Writings* (Hafner, 1953)

Class Website: <http://www.sscnet.ucla.edu/08S/hist3b-1>

Lecture Dates, Topics, & Readings for Sections

04 01 Introduction

04 03 The Old Philosophy: The Magical World & the Rise of the Machines

Reading: White, *Isaac Newton*, pp. 1-103

04 08 The New Philosophy: The Mechanical and the Experimental Philosophies

04 10 The Cambridge Professor: Newton & the New Philosophy

Reading: White, *Isaac Newton*, pp. 104-221 [+ opt. Newton, *Natural Philosophy*, pp. 3-11, 25-26]

04 15 The System of the World: Newton & Gravity

04 17 Unitarianism: Newton, Light, & Theology

Reading: White, *Isaac Newton*, pp. 222-361 [+ opt. Newton, *Natural Philosophy*, pp. 41-67]

04 22 The Philosopher's Stone & the Future of Genius: Newton & Newtonianism in the 18th Century

04 24 Midterm

Reading: Darnton, *Mesmerism*, [pp. 2-81](#); Mesmer, *Discovery*.

04 29 The Electric Dinner: Benjamin Franklin & Enlightened Science

05 01 Mesmerized: Anton Mesmer & Popular Science

Reading: Franklin, *Report on Animal Magnetism*

05 06 Linnaeus & the Monsters: The History of Natural History

05 08 Lamarck & the Dinosaurs: The Emergence of Biology

Reading: Darwin, *The Voyage of the Beagle*, in *From So Simple a Beginning*, pages TBA

05 13 Cuvier & the Fossils: Comparative & Transcendental Anatomy

05 15 Darwin & the Earth: The Voyage of the Beagle

Reading: Darwin, *The Origin of Species*, in *From So Simple a Beginning*, pages TBA

05 20 The Origin of Darwin: “The Mystery of Mysteries”

05 22 The Origin of Species: Darwin & Natural Selection

Reading: Darwin, *The Descent of Man*, in *From So Simple a Beginning*, pages TBA

05 27 The Descent of Man (& Woman!): Darwin & Human Races

05 29 The Descent of Man (& Woman!): Darwin & Sexual Selection

Reading: Darwin, *The Descent of Man*, in *From So Simple a Beginning*, pages TBA

06 03 Darwin: Pro & Contra

06 05 Conclusion & Summary: Natural Science from Newton to Darwin

Final: Take Home Essay + In-Class Short(er) Answers: Thursday, June 12, 2008, 11:30 AM - 2:30 PM