History of Science 100
Spring 2002
Course Syllabus

Instructor: Blair Nelson
Office: Social Sciences 6202
Office Hours: Tues. and Thurs., 4:00-5:00 p.m. and by appointment.
I will usually be available after lectures, as well.
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Objectives: One of the distinctive features of our time is the powerful role science has come to play in western (and non-western) culture. More resources, attention, and expectations are focussed on the study of nature today than any period in history prior to the past two centuries. With this dominance of science as a feature of modern culture comes an image of "the scientist" as the one who produces this knowledge. We lionize the "great scientists" whose acheivements have helped to shape our world. The purpose of this course is to examine this notion of "greatness" and the image of science it assumes by evaluating it with respect to five "great" scientists. Three of these are names you would expect: Isaac Newton, Charles Darwin, and Albert Einstein. Through historical investigation, we will attempt to assess their contributions to science and their relation to western culture in general.

The subject of this course is as much these scientists' public reputations as the scientists themselves. Our premise is that the scientific acheivements of Newton, Darwin, and Einstein do not sufficiently explained the cultural importance of their names. In order to challenge our received notions of scientific "greatness" (or perhaps to indulge your instructor's own view of things) we will also study two scientists who may well be counter-examples to our popular notions of "greatness." Louis Agassiz (who?!) and Barbara McClintock (well, at least she won a Nobel Prize) are perhaps new names to you, but they have their own claims to our attention and will help us to critically assess how we view science and its "great" practitioners. In the course of the semester we will examine the life and science of each of our five scientists, the development of their public reputations, and the history of those reputations in order to understand the multiplicity of meanings science has in western culture.

Requirements:

Attendance	10 %
Weekly Quizzes	30 %
Papers	60 %

Attendance: a sign-in sheet will be circulated in Tuesday class meetings and your quiz papers will indicate your presence on Thursdays.

Quizzes: Each Thursday, beginning January 31, there will be a 10-question quiz at the end of the period using True/False and multiple-choice formats. Each quiz will cover the lecture and reading material of the week ending the previous Tuesday's lecture. The three lowest scores will be dropped from your grade. If you are forced to be absent on a quiz day, that quiz will be counted as one of the dropped scores unless you have already missed three. If for legitimate and pressing reasons you have to miss more than three quizzes, please talk to the instructor.

Papers: At the end of the course you will turn in a paper examining the notion of "greatness" using our five scientists as case studies. An early version of that paper based on the first two units will be due shortly after unit 2 (see schedule below) to allow for instructor feelback as your project develops. No extra research is required for these papers beyond the course readings and lecture material.

The length and relative weight of each paper:

Paper 1, 4-5 pages **Due Mar. 19**	10%
Paper 2, 10-12 pages **Due May 12**	50%
	60% of the total grade.

Please keep to the length limits. If you find you cannot, then you have not understood the assignment. Final papers longer than 12 pages will be assessed a penalty.

Readings:

A. Course Reader – available in the History of Science Dept. office, 7143 Social Sciences. The office is open from 7:30 to 3:15.

The following are available in the bookstore:

B. Betty Jo Teeter Dobbs and Margaret Jacob, *Newton and the Culture of Newtonianism.*
C. David Cassidy, *Einstein and Our World.*
D. Evelyn Fox Keller, *A Feeling for the Organism: The Life and Work of Barbara McClintock.*
E. Peter Bowler, *Charles Darwin: the Man and His Influence.*