

Case Studies in Scientific Ethics

Course: *Case Studies in Scientific Ethics*

Identifier: CHPH 714

Instructor: Charles W. Clark, Institute for Physical Science and Technology and Joint Quantum Institute

Outline: Events during the past decade have highlighted the issues of ethical conduct in scientific research. This course will address the intersection of ethics and science following the "case study" approach of *On Being a Scientist: A Guide to Responsible Conduct in Research, Third Edition* (The National Academies Press, Washington, DC, 2009), but using actual examples from recent controversies in physical sciences. We will look at the causes, rationales and consequences of ethical decisions, as they affect individuals, organizations and the relationship between science and society. Active engagement of students in the coursework is essential. During each week we will discuss a case on Wednesday morning; students must submit an essay (maximum 600 words) by e-mail by Thursday evening; essays will be anonymized and form the basis of class discussion on the Friday morning.

A pass grade in this course will certify that the student has read, and passed an examination on, the *Federal Policy on Research Misconduct* (*Federal Register*, Vol. 65, No. 235, Wednesday, December 6, 2000, pp. 76260-76264).

Required reading: In addition to course handouts, the following texts are required reading:

Federal Policy on Research Misconduct, <http://tr.im/umde7h1cs>

On Being a Scientist: A Guide to Responsible Conduct in Research, Third Edition (The National Academies Press, Washington, DC, 2009) - free pdf available online at <http://tr.im/umde7h1c5>, though hard-copy purchase is recommended.

Plastic Fantastic: How the Biggest Fraud in Physics Shook the Scientific World, by Eugenie Samuel Reich (Palgrave Macmillan, New York, 2009) - see <http://tr.im/umde7h1c6>.

Schedule: Wednesdays and Fridays, 9:00 a.m. - 11:00 a.m., January 6, 2010.

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