The Politics of Science

FNR8080 [Graduate Seminar] / PRTM 9000 [Politics of Science] (1 credit)
Prof. G. Machlis
Clemson University
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Mondays, 9:05a – 9:55a

About the Seminar
This graduate seminar examines the relationship between politics and science in contemporary America. The seminar is designed for graduate students in a wide range of scientific disciplines, graduate students interested in the broader relationship of science and society, and research staff engaged in advancing science.

The politics of science is expressed in many forms, including:

- controversies surrounding global climate change, pandemics, genetic engineering, and other contested research topics,
- scientific disputes within government agencies and scientific advisory panels,
- issues of advocacy by scientists,
- ideological struggles over science and values (often called “the science wars”),
- Congressional appropriation and oversight of federally-funded research,
- the “gatekeeping” function of scientific journals,
- the handling (or mis-handling) of scientific misconduct and fraud,
- ethical conduct of research, and more.

Evidence suggests that the influence of politics is increasing, with significant implications for scientists, scientific careers, research universities, the scientific community, and society at large.

Objectives and Scope
Our objectives are to describe the influence of politics on the practice of science, understand its sources and implications, and apply these insights to the preparation of scientific careers and leading of research enterprises. Our focus is on American science (politics is influential elsewhere, of course), and many (but not all) of our examples will be taken from the environmental sciences.

Instructor: Dr. Gary Machlis (machlis@clemson.edu)
Dr. Gary Machlis is Professor of Environmental Sustainability at Clemson University, and Science Advisor to the Director of the National Park Service in Washington, DC. He advises the Director on issues of science policy, programs, and issues, and serves as the Science Integrity Officer for the agency. Dr. Machlis is also co-leader of the Department of the Interior’s Strategic Sciences Group, which provides science-based assessments to government leaders during major environmental crises, most recently Hurricane Sandy.