Fall 2011 Courses

PHD GATEWAY IN SECURITY STUDIES, WWS 550
Christopher F. Chyba, Thomas J. Christensen, Aaron L. Friedberg
The field of Security Studies is distinguished by its focus on a clearly delineated set of intellectual and practical problems. This course will serve as the required gateway for all students entering the Woodrow Wilson School's new PhD cluster in Security Studies. Students will take this course during the fall semester of their first year.

SCIENTISTS AGAINST TIME, FRESHMAN SEMINAR, FRS 153
Harold A. Feiveson
This seminar will explore some of the critical contributions of (mostly Allied) scientists, engineers, and mathematicians during World War II. Topics will include radar and the Battle of Britain; cryptography and the breaking of the German Enigma code; radar, cryptography, operations research, and the Battle of the Atlantic against German submarines; rockets, missiles, airplanes, and the erratic history of strategic bombing; science and deception in the D-Day invasion; and the Manhattan Project to develop the atomic bomb. This will all involve historical analysis and an introduction to some realms of science and technology. Visiting experts will help us sort through the history and science.

POLICY WORKSHOP – NEGOTIATING WITH IRAN OVER ITS NUCLEAR PROGRAM, WWS 591F
Frank N. von Hippel
Iran's secret uranium enrichment and heavy-water reactor programs were exposed to the world in August 2002. The purpose of this workshop will be to better understand the constraints imposed by the political systems in Teheran and Washington, as well as the perspectives of the International Atomic Energy Agency (IAEA), other members of the P5+1 and Israel and to identify the misconceptions that may be making the diplomatic track less successful than it could be.

FUKUSHIMA, CHERNOBYL, THREE MILE ISLAND: SEVER ACCIDENTS AND NUCLEAR POWER, FRESHMAN SEMINAR, FRS 591F
M.V. Ramana
The March 2011 accidents at Japan’s Fukushima nuclear reactors provided a painful reminder that nuclear accidents can have a long-lasting local, regional, and global impact. This course will explore the complexities of nuclear technology and the causes and consequences of nuclear accidents. It will examine the implications of the potential for severe accidents for the future of nuclear power and energy policy in general. The course will be composed of four parts. The first will offer a basic introduction to nuclear energy, its current status and various challenges it faces to expansion, reactor safety, and the health impacts of radiation exposure. The second part will examine what happened at the three major nuclear power reactor accidents so far: Three Mile Island, Chernobyl, and, now, Fukushima. The third part will look at what we have learned from these accidents, how analysts think about nuclear safety, how planners seek to deal with potential accidents, and how accidents and nuclear power have been portrayed in popular culture and perceived by members of the public. The final part will try to assess what role nuclear power might play in the future.