

## Learning about WMD By Daniel Mullen

Monday, November 1, 2004  
, Section: U. Town, Page 9A

---

MU's new course on nonproliferation issues explores global concerns about weapons of mass destruction

As the spread of weapons of mass destruction is pushed to the forefront of American politics, MU students can take advantage of a new opportunity to become more informed on the subject.

Next semester, MU's Nuclear Science and Engineering Institute will launch "Nuclear Engineering 4401: Nonproliferation Issues." The course will be taught by nuclear engineering professors Mark Prelas and Tushar Ghosh. It will focus on the resources needed for the creation of nuclear, chemical and biological weapons. It will also look at the reasons these weapons are created and their dangers.

Prelas said the course will take a global approach to the proliferation of weapons. He hopes to convey the seriousness of proliferation issues, as well as solutions to the problems they may create.

"I would hope that the students come to the realization that very complex issues will dominate their lives and the lives of their children," Prelas said. "As citizens, we must prepare ourselves to tackle some very serious problems of which proliferation of (weapons of mass destruction) is only a symptom."

Dabir Viswanath, professor of chemical engineering who may also teach parts of the course, said he hopes students taking the course learn the disastrous consequences weapons of mass destruction can produce.

"We want to show them the ramifications of these things," Viswanath said. "When you realize the colossal damage that they cause, you'll realize that they have to be dealt with. I know that the United States has its own nuclear weapons and that you can't restrict everything, but we hope to bring a balance to the curriculum."

The course will emphasize how the protection and seizure of resources, especially oil, primarily drive proliferation. As economies grow, competition for oil, and thus weapons proliferation, will also grow, Prelas said. For example, he said that in the past few years, the U.S. government has invested hundreds of billions of dollars in oil protection but about \$1.5 billion in hydrogen fuel research.

Ghosh said if oil prices remain at \$50 per barrel, a global recession may occur and countries may be forced to find alternative fuel sources. He added, however, that countries using alternative energy sources, such as nuclear energy, may also increase proliferation. Prelas said he hopes to convey to students that proliferation is already out of control.

"It is imperative as citizens that we share in the critical decisions which our country will have to make in order to thrive in the rapidly changing world," Prelas said. "We have to abandon the myth that politicians always know what they're doing. We can't simply leave these decisions to a select few."

The course will also cover treaties, weapons manufacturing, the future states of weapons programs and efforts to stop proliferation.

"We will discuss whether countries are honoring treaties and what can be done to make them work," Ghosh said. "We will also teach students how to use key signatures to identify what kinds of weapons are being created in specific facilities."

Prelas, who designed the course, said several of his experiences led him to recognize the importance of nonproliferation.

"I began worrying about nonproliferation when I was part of the first delegation of Westerners allowed in the first-tier nuclear weapons laboratories of the USSR in 1991," Prelas said. "I started thinking about offering this course in 1998 after the Nuclear Science and Engineering group offered a seminar on nonproliferation of nuclear weapons."

Prelas worked in the U.S. Department of State in 2000, where he dealt with the issues of globalization and Internet technology transfer, two key factors explaining the faster proliferation of weapons technology in recent years.

Nonproliferation Issues will first be offered through the Honors College with a capacity of 20 students. Prelas said he hopes to offer the course on regularly in the future.

He said it could become part of a broad curriculum for students interested in national security. It also includes "Nuclear Engineering 4330: Scientific and Technological Aspects of Terrorism," which the Institute launched in the fall of 2000.

Students interested in taking Nonproliferation Issues should call Prelas at 882-9691.

For more

information

The U.S. State Department's official Bureau of Nonproliferation can be found online at [www.state.gov/t/np](http://www.state.gov/t/np)

\* The most recent major anti-proliferation action taken by the U.S. government is the Proliferation Security Initiative. Introduced in May 2003, it aims to stop shipments of weapons of mass destruction. Australia, France, Germany, Italy, Japan, the Netherlands, Poland, Portugal, Spain, the United Kingdom and the United States agreed to honor the initiative. For more, go to [www.state.gov/t/np/rls/other/](http://www.state.gov/t/np/rls/other/)

34726.htm.

\* The Center for Nonproliferation Studies at the Monterey Institute of International Studies in Monterey, Calif., is the only educational institution in America offering graduate students a nongovernment certificate program in nonproliferation studies. For more information, go to [cns.miis.edu/](http://cns.miis.edu/)

index.htm. One example of a government-run program is that of the Pacific Northwest National Laboratory in Richland, Wash. Its Web site is [ngp.pnl.gov](http://ngp.pnl.gov).

\* Other institutions offering courses on nonproliferation/arms control include the U.S. Department of Commerce's NEC Training Center ([www.bxa.doc.gov/NECTIC/Courses2.htm](http://www.bxa.doc.gov/NECTIC/Courses2.htm)), the University of Illinois at Urbana-Champaign, the University of Washington in Seattle, Harvard, the University of Georgia, University of California at Santa Cruz, and the PIR Center for Policy Studies in Russia ([www.pircenter.org/english/projects/young\\_expert.htm](http://www.pircenter.org/english/projects/young_expert.htm)).

**Photo Caption: MU's new course on nonproliferation issues explores global concerns about weapons of mass destruction**

for more

information

n The U.S. State Department's official Bureau of Nonproliferation can be found online at [www.state.gov/t/np](http://www.state.gov/t/np)

\* The most recent major anti-proliferation action taken by the U.S. government is the Proliferation Security Initiative. Introduced in May 2003, it aims to stop shipments of weapons of mass destruction. Australia, France, Germany, Italy, Japan, the Netherlands, Poland, Portugal, Spain, the United Kingdom and the United States agreed to honor the initiative. For more, go to [www.state.gov/t/np/rls/other/34726.htm](http://www.state.gov/t/np/rls/other/34726.htm).

\* The Center for Nonproliferation Studies at the Monterey Institute of International Studies in Monterey, Calif., is the only educational institution in America offering graduate students a nongovernment certificate program in nonproliferation studies. For more information, go to [cns.miis.edu/](http://cns.miis.edu/)

index.htm. One example of a government-run program is that of the Pacific Northwest National Laboratory in Richland, Wash. Its Web site is [ngp.pnl.gov](http://ngp.pnl.gov).

---

Filename: **TX00011.SGM**  
Service:  
Category:  
Supplemental Category:  
Instructions:  
Created: **November 1, 2004**  
City:  
Country:  
Reference:  
Merlin ID: **1617**  
Copyright:

Copyright year: 0  
Keywords:  
Library enhanced? Yes  
Rights? Yes  
Input Date: 2004/11/01