

**Political Science 497**  
**Special Topics: Nuclear Weapons in International Relations**  
Spring 2020 Semester  
TuTh 1:35-2:50, Elec Eng West 109

**Instructor Information:**

Roseanne McManus  
211 Pond Lab  
Roseanne.McManus@psu.edu  
Office Hours: Tu 12:00-1:00, Th 9:00-10:00, and by appointment

**Course Overview**

This course will introduce students to the role of nuclear weapons in international relations. The course will cover the origins of nuclear weapons, the reasons states seek them, the strategies developed for their use, the consequences of their development, and efforts to control and reverse their spread. In addressing these issues, we will study a variety of countries that have pursued or attained nuclear weapons.

Each class meeting will include both lecturing and opportunities for discussion. I will typically present theories and background information in lecture format, and we will use discussion format to analyze the material in more depth. In addition, I will often pose questions to the class while lecturing, and I encourage you to raise your hand with any questions while I am lecturing.

**Objectives**

- Understand the reasons countries seek nuclear weapons.
- Compare the positive and negative effects of nuclear proliferation.
- Understand nuclear strategy and its implications for the US nuclear arsenal.
- Understand the challenges of nuclear disarmament.
- Evaluate the motives of and threats posed by particular nuclear-armed countries.
- Debate the merits of arguments expressed in academic and policy articles.
- Write a research paper that applies theories from class to a particular empirical case.

**Course Grade Breakdown**

<b>Grade Component</b>	<b>Grade %</b>	<b>Date/Deadline</b>
Class participation	20	Every class
Reading quizzes	5	In class, as designated in schedule
Midterm Exam	25	March 3, in class
Final Exam	25	To be scheduled by university
Draft Research Paper	ungraded	April 10, 5:00 PM, via TurnItIn
Final Research Paper	25	April 24, 5:00 PM, via TurnItIn

## COURSE REQUIREMENTS

### Class Participation and Attendance

For each class meeting, you will receive a participation score between 0 and 10. Students who make frequent and high-quality contributions to the discussion will earn 10 points, students who make at least some relevant contribution will earn 9 or 9.5 points, and students who are present but silent will earn 8.5 points. Because some days will have more opportunities to participate than others, I will do a slight curve of the participation averages at the end of the semester.

Students will receive a 0 for each unexcused absence. Excused absences will be dropped from the course grade. To have an absence excused, you must contact me with a valid excuse within one week after the absence. I will determine the validity of excuses at my own discretion and may require documentation. Valid excuses generally include physical or mental illness, family emergencies, university-sponsored activities, and career-related activities. Furthermore, I will drop your lowest two participation scores at the end of the semester, which essentially means you can have two “free” absences without needing a valid excuse.

If you arrive after I take attendance, it is your responsibility to let me know after class that you were present. One or more points will be deducted from the daily participation score of students who come in late, leave early, have side conversations, or engage in other disrespectful behavior. If you have a valid reason for arriving late or leaving early on a particular day, please let me know.

### Readings and Quizzes

All of the readings on the syllabus provide useful background for the lecture, and I will occasionally reference them as I lecture. However, there are some readings that I want to have deeper discussions about, and these are designated as “*quiz and discussion*” readings in the course schedule below. These readings are typically academic articles that make an argument and seek to support it with empirical evidence. By analyzing these articles, you will gain insight into how to evaluate an argument.

For the “quiz and discussion” readings, I will send out reading comprehension questions at least two days in advance. In class, before we discuss the reading, I will administer a short (3-5 minute) open-notes quiz based on a subset of the questions that were sent out earlier.

If you have an *excused* absence on a quiz day, I will simply drop the quiz from your average. If you have an unexcused absence on a quiz day, you will receive a 0 for the quiz, unless you email me your answers to *all* of the reading comprehension questions before class starts. (This is an option you might want to use if you know in advance you will be absent for a non-excusable reason, such as a vacation.) At the end of the semester, I will drop your lowest quiz grade, which may be a 0.

## Exams

The exams will cover the lectures and the quiz and discussion readings. Each exam will include multiple choice questions and two short essay questions. I will release an exam study guide two weeks before each exam is scheduled. A make-up exam will only be given if a student contacts me prior to the exam and provides a valid excuse with documentation. Otherwise, you will receive a 0 if you miss an exam.

## Research Paper

The paper assignment is to take one of the theoretical debates we cover in class and argue which side is correct with respect to a specific case. As one example, the theoretical debate topic could be, “Is nuclear proliferation stabilizing or destabilizing?” applied to the case of India and Pakistan. As another example, the theoretical debate topic could be, “Does the security model, the domestic politics model, or the norms model best explain nuclear proliferation?” applied to the case of France. In building your argument, you should discuss the merits of arguments on each side of the theoretical debate and defend your own position with evidence.

***Research papers must be submitted via TurnItIn and will be checked using TurnItIn anti-plagiarism software.*** (Go to <https://turnitin.psu.edu/> and use class id 23349676 and enrollment key McManus\_S20 to sign up.) Papers will be graded based on evidence of understanding theories from class, quality of research, strength of argumentation, and writing style. More detailed instructions for the research paper and a grading rubric will be posted on Canvas.

## Research Paper Draft

If you would like feedback on your research paper prior to your final submission, you must upload it to TurnItIn by 5pm on April 10. The nature of the feedback that you receive will be general. For example, if there are grammar problems, I will not correct your grammar, but rather say that your grammar needs work. Your draft will not be graded.

If you miss the deadline for submitting a draft, I will not be able to look at your entire research paper, but I am willing to review an outline or excerpt up to 300 words long with 24 hours’ notice. You are welcome and encouraged to run your paper topic and thesis by me at any time. I am also happy to talk with you about how to structure your argument, where to find evidence, or any other questions you may have.

## COURSE AND UNIVERSITY POLICIES

**Exceptions to Course Policies:** The policies for this course are clearly laid out and fairly generous (for example, dropping the lowest quiz score and lowest two participation scores). Therefore, I am very unlikely to make exceptions. I also do not plan to offer extra credit.

**Contacting Me:** I generally allot time to respond to student emails at the beginning of each business day (Monday-Friday). Do not wait until the last minute to ask a question. If your

question requires a response more than a few sentences long, it would be better to ask me after class, come to my office hours, or make an appointment.

**Required Materials:** There is one required book:

- Sagan, Scott D., and Kenneth N. Waltz. 2013. *The Spread of Nuclear Weapons: An Enduring Debate, 3rd Edition*. New York: W. W. Norton.

All other readings will be posted on Canvas.

**Class Notes:** I will post my lecture slides on Canvas, but these are merely an outline of what is covered in class. The lecture slides should be supplemented by your own note-taking. If you are absent from class for any reason, it is your responsibility to get notes from a classmate.

**Electronics in the Classroom:** You may use a laptop or tablet to take notes if desired. Please refrain from doing non-course-related activity on your laptop during class, both for your own benefit and as a courtesy to those seated behind you. Please do not take photos during class.

### Grading Scale

I will use the following grading scale:

A = 93 to 100

A- = 90 to 92

B+ = 87 to 89

B = 83 to 86

B- = 80 to 82

C+ = 77 to 79

C = 70 to 76

D = 60 to 69

F = 59 and below

### Academic Integrity

Penn State defines academic integrity as “the pursuit of scholarly activity in an open, honest and responsible manner” (Senate Policy 49-20). Dishonesty of any kind will not be tolerated in this course. Dishonesty includes, but is not limited to, cheating, plagiarizing, fabricating information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without permission from the instructor, or tampering with the academic work of other students. Students facing allegations of academic misconduct should not drop the course; those who do will be added to the course again and will be expected to complete course work and meet course deadlines. If the allegations are dismissed, then the drop will be permitted. Students found responsible for academic misconduct often receive academic sanctions, which can be severe, and put themselves at risk for disciplinary sanctions assigned by the University's Office of Student Conduct (see Senate Policy G-9).

***Your papers will be automatically checked for plagiarism using TurnItIn.*** To avoid plagiarizing, you must do all of the following each time you incorporate someone else's arguments or work or any information that is not common knowledge into your paper:

1. Either use quotation marks around the author's words or rephrase completely in your own words.
2. Include an in-text citation.
3. Have an entry in your References section at the end that matches the citation.

### **Students with Disabilities**

I am happy to make reasonable accommodations for disabilities. If you require this, please provide me with a letter from Student Disability Resources within the first two weeks of class.

### **Counseling**

Many students at Penn State face personal challenges or have psychological needs that may interfere with their academic progress, social development, or emotional well-being. The university offers a variety of confidential services to help you through difficult times, including individual and group counseling, crisis intervention, consultations, online chats, and mental health screenings. Here is some contact information:

- Counseling and Psychological Services at University Park(CAPS): 814-863-0395 or <http://studentaffairs.psu.edu/counseling/>
- Penn State Crisis Line (24 hours/7 days/week): 877-229-6400
- Crisis Text Line (24 hours/7 days/week): Text LIONS to 741741

### **Educational Equity and Reporting Bias Incidents**

Penn State takes great pride to foster a diverse and inclusive environment for students, faculty, and staff. Consistent with University Policy AD29, students who believe they have experienced or observed a hate crime, an act of intolerance, discrimination, or harassment that occurs at Penn State are urged to report these incidents as outlined on the University's Report Bias webpage (<http://equity.psu.edu/reportbias/>).

### **Extended Absences**

If extreme circumstances arise requiring extended absences, I recommend working with me directly to determine how you can make up missed work. If your situation rises to a level of difficulty that you cannot manage on your own with faculty support, reach out to the Student Care & Advocacy office by phone at (814-863-2020) or email them at [StudentCare@psu.edu](mailto:StudentCare@psu.edu).

## COURSE OUTLINE

*Note: Some topics will spill over between classes. Any changes to the order of topics or assignment deadlines will be announced in class and by email.*

### PART 1: INTRODUCTION

- Jan 14**    **Course Overview, Status of Nuclear Weapons in the World Today**
- No reading
- Jan 16**    **Science of Nuclear Weapons**
- Harris, William, Craig Freudenrich, and John Fuller. 2015. "How Nuclear Bombs Work." HowStuffWorks.com.
- Jan 21**    **Nuclear Non-Proliferation Treaty and Other Proliferation Restrictions**
- NPT Treaty text

### PART 2: NUCLEAR PROLIFERATION

- Jan 23**    **Nuclear Latency and Reasons States Want Nuclear Weapons**  
*Also discuss how to read an academic article*
- Sagan, Scott D. 1996. "Why Do States Build Nuclear Weapons? Three Models in Search of a Bomb." *International Security* 21(3):54-86.
- Jan 28**    **Application to India**
- Ganguly, Sumit. 1999. "India's Pathways to Pokhran II: The Prospects and Sources of New Delhi's Nuclear Weapons Program." *International Security* 23(4):148-177. **(QUIZ AND DISCUSSION)**
- Jan 30**    **Security Reasons for Wanting Nukes: Spiral Model v. Deterrence Model**
- Jervis, Robert. 1976. *Perception and Misperception in International Politics*. Princeton: Princeton University Press. Pages 58-83.
- Feb 4**    **Application to North Korea**
- Sagan Scott D., and Kenneth N. Waltz. 2013. *The Spread of Nuclear Weapons: An Enduring Debate*, 3rd Edition. New York: W. W. Norton. Pages 177-178, 184-191, and 204-209.
- Feb 6**    **Domestic Factors Affecting Demand for Nukes**
- Solingen, Etel. 1994. "The Political Economy of Nuclear Restraint." *International Security* 19(2):126-169. Focus on pages 136-142.
  - Hymans, Jacques E. C. 2011. "Veto Players, Nuclear Energy, and Nonproliferation: Domestic Institutional Barriers to a Japanese Bomb." *International Security* 36(2):154-189.

**Feb 11 Psychological Reasons for Wanting Nukes**

- Hymans, Jacques E. C. 2000. "Isotopes and Identity: Australia and the Nuclear Weapon Option, 1949-1999." *Nonproliferation Review* 7(1). Focus pages 2-3.
- Hymans, Jacques E. C. 2001. "Of Gauchos and Gringos: Why Argentina Never Wanted the Bomb and Why the United States Thought It Did." *Security Studies* 10(3):153-185. **(QUIZ AND DISCUSSION)**

**Feb 13 Application to Iran**

*Also go over research paper assignment*

- Sagan Scott D., and Kenneth N. Waltz. 2013. *The Spread of Nuclear Weapons: An Enduring Debate*, 3rd Edition. New York: W. W. Norton. Pages 191-200 and 209-213.

**PART 3: CONSEQUENCES OF NUCLEAR PROLIFERATION**

**Feb 18 Pros and Cons of Nuclear Proliferation**

- Sagan Scott D., and Kenneth N. Waltz. 2013. *The Spread of Nuclear Weapons: An Enduring Debate*, 3rd Edition. New York: W. W. Norton. Chapters 1-2. **(QUIZ AND DISCUSSION)**

**Feb 20 Role of Nuclear Weapons during the Cold War**

*Also brainstorm research paper topics*

- Mueller, John. 1988. "The Essential Irrelevance of Nuclear Weapons: Stability in the Postwar World." *International Security* 13 (2):55-79.
- Jervis, Robert. 1988. "The Political Effects of Nuclear Weapons: A Comment." *International Security* 13 (2):80-90.

**Feb 25 Effect of Nuclear Proliferation on India and Pakistan**

- Kapur, S. Paul. 2005. "India and Pakistan's Unstable Peace: Why Nuclear South Asia Is Not Like Cold War Europe." *International Security* 30(2):127-52.

**Feb 27 The Risk of Nuclear Terrorism**

*Also cover finding research paper sources*

- Sagan Scott D., and Kenneth N. Waltz. 2013. *The Spread of Nuclear Weapons: An Enduring Debate*, 3rd Edition. New York: W. W. Norton. Pages 83-87 and 115-122.

**Mar 3 Midterm Exam**

**Mar 5 Tour of Penn State's Nuclear Reactor** – Pending confirmation. Date could change.

**Mar 10 & 12:** No class (Spring Break)

## **PART 4: NUCLEAR STRATEGY AND ARSENAL STRUCTURE**

### **Mar 17 Dropping the Bomb on Japan**

*Also cover avoiding plagiarism*

- Wilson, Ward. 2007. "The Winning Weapon? Rethinking Nuclear Weapons in the Light of Hiroshima." *International Security* 31(4):162-179. **(QUIZ AND DISCUSSION)**

### **Mar 19 Introduction to Nuclear Strategy and Arsenal Structure**

- No reading due

**Mar 24 & 26:** No class (Professor at conference)

### **Mar 31 Russian and Chinese Nuclear Strategy**

*Also give tips on research paper structure, grammar, and style*

- Kulacki, Gregory. 2015. "Should U.S. Nuclear Strategy Be More like China's?" *Huffington Post*, May 26.
- Oliker, Olga. 2018. "Moscow's Nuclear Enigma." *Foreign Affairs* 97(6):52-59.

### **Apr 2 US Nuclear Strategy and Arsenal**

- Payne, Keith B. 2016. "Why US Nuclear Force Numbers Matter." *Strategic Studies Quarterly* 2016(Summer):14-24. **(QUIZ AND DISCUSSION)**

### **Apr 7 Controversies over Missile Defense**

- Payne, Keith B. 2000. "The Case for National Missile Defense." *Orbis* 44(2):187-196.
- Miller, Steven E. 2001. "The Flawed Case for Missile Defense." *Survival* 43(3):95-109.

**Apr 9-14 Watch and Discuss *Dr. Strangelove***

### **Apr 14 Nuclear Command and Control in the US**

- Betts, Richard K., and Matthew C. Waxman. 2018. "The President and the Bomb: Reforming the Nuclear Launch Process." *Foreign Affairs* 97(2):119-128.

## **PART 5: NUCLEAR RESTRAINTS AND DISARMAMENT**

### **Apr 16 Is There a Nuclear Taboo?**

- Tannenwald, Nina. 1999. "The Nuclear Taboo: The United States and the Normative Basis of Nuclear Non-Use." *International Organization* 53(3):433-468.
- Sagan, Scott, D., and Benjamin A. Valentino. 2017. "Revisiting Hiroshima in Iran: What Americans Really Think about Using Nuclear Weapons and Killing Noncombatants." *International Security* 42(1):41-79. **(QUIZ AND DISCUSSION)**

### **Apr 21 Nuclear Arms Control Treaties**

- Fuhmann, Matthew, and Yonatan Lupu. 2016. "Do Arms Control Treaties Work? Assessing the Effectiveness of the Nuclear Nonproliferation Treaty." *International Studies Quarterly* 60(3):530–539.
- Possible additional reading on New Start Treaty: To be announced.

### **Apr 23 No class (Professor at National Science Foundation)**

**Note: Research papers due at 5pm on April 24**

### **Apr 28 Countries that Have Given up Nuclear Programs**

- Liberman, Peter. 2001. The Rise and Fall of the South African Bomb. *International Security* 26(2):45-86.
- Jentleson, Bruce W., and Christopher A. Whytock. 2005. "Who 'Won' Libya? The Force-Diplomacy Debate and Its Implications for Theory and Policy." *International Security* 30 (3):47-86.

### **Apr 30 Worldwide Nuclear Disarmament**

- Sagan Scott D., and Kenneth N. Waltz. 2013. *The Spread of Nuclear Weapons: An Enduring Debate*, 3rd Edition. New York: W.W. Norton. Chapter 7. **(QUIZ AND DISCUSSION)**