

PHYS 280 Writing Lab 6

Monday, Feb. 28

Reminders

- RPPv2 due Wednesday 3/2, paper copy due Thursday 3/3
 - If you received a HOLD you MUST see a TA before this deadline! If you see a TA other than your Writing Lab TA, make sure to email your Writing Lab TA with the name of the TA that you met with
- RE3v1 peer review due Sunday 3/6 by 10pm, will bring the paper copy to Writing Lab on Monday 3/7 with an extra copy for colleague
- RE3v2 due Wednesday 3/9 at 10pm
- Assign RPCR (due Sunday 3/13 at 10pm)

Extra Credit

- New EC opportunities posted on the PHYS 280 website
- All EC opportunities are due by the April 18th writing lab

Opportunity	Date Announced	Original Date of Event	Due Date	Details
Cyber Threats and Nuclear Weapons: A Book Talk with Herb Lin, Ph.D. (ACA)	Feb 26	Dec 3, 2021 (video recording)	Apr 18 writing lab	Standard Prompt
China's Nuclear Expansion: The Challenges, Implications, and Risk Reduction Options (ACA)	Feb 26	Nov 17, 2021 (video recording)	Apr 18 writing lab	Standard Prompt
Smarter Options on U.S. Nuclear Modernization (ACA)	Feb 26	May 17, 2021 (video recording)	Apr 18 writing lab	Standard Prompt
Renegotiating the Nuclear Order: A Sociological Approach (VCDNP)	Feb 26	Jan 11, 2022 (video recording)	Apr 18 writing lab	Standard Prompt
The Rule of Law and the Role of Strategy in US Nuclear Doctrine (article under discussion) with Prof. Scott Sagan (VCDNP)	Feb 26	Feb 1, 2022 (videocast recording; Machiavelli in the Ivory Tower series)	Apr 18 writing lab	Standard Prompt
60 Years After Sputnik - A Critical Juncture in Humanity's Use of Space with Frederick K. Lamb (UIUC Depts. of Physics and Astronomy, ACDIS)	Feb 26	Oct 31, 2018 (recording)	Apr 18 writing lab	Standard Prompt
Proposal Writing for Undergraduate Researchers (UIUC Writers Workshop)	Feb 26	March 2, 4-5pm -- registration required	Apr 18 writing lab	Standard Prompt
Find Your Flow: Revising Structure and Argument (UIUC Writers Workshop)	Feb 26	March 8, 1-2pm (live webinar) -- registration required	Apr 18 writing lab	Standard Prompt
Writing with Style: Revising Paragraphs and Sentences (UIUC Writers Workshop)	Feb 26	March 30, 4-5pm (live webinar) -- registration required	Apr 18 writing lab	Standard Prompt

Quiz #2

1) HEU needed for crude weapon

According to the Belfer Center's Nuclear Terrorism Fact Sheet, how much HEU is required to make a crude nuclear bomb?

- A. 2.5 kg
- B. 25 kg
- C. 250 kg
- D. 2500 kg

2) Acquisition of nuclear weapons by terrorists

According to “Preventing Catastrophic Nuclear Terrorism,” in what way is a terrorist group most likely to obtain a nuclear weapon?

- A. Stealing a nuclear weapon
- B. Buying a nuclear weapon
- C. Building a nuclear weapon from scratch
- D. Summoning a nuclear weapon from another dimension

3) SAFF

What does SAFF stand for?

- A. Safing, Arming, Firing, Fusing
- B. Securing, Assisting, Firing, Fusing
- C. Separating, Arming, Filtering, Fusing
- D. Saturating, Assisting, Filtering, Fusing

4) Triple Cocktail

Which of these is not part of the lethal triple cocktail?

- A. Disaffected Individual
- B. Extreme Poverty
- C. Enabling Community
- D. Legitimizing Ideology

5) Author

The author of “What Terrorists Want,” _____ was born and raised in _____

- A. Charles Ferguson, USA
- B. Louise Richardson, Ireland
- C. David Sanger, England
- D. Fareed Zakaria, India

RPCR

Research Paper Collegiate Response

(<https://courses.physics.illinois.edu/phys280/sp2022/research-paper-collegial-response.html>)

- **Summary:** Contribute your expertise to a colleague to help them explain and explore the nuclear security problem about which they writing for the Illini Journal of International Security. Your feedback matters. Your collegial response, and the instructional staff's PASS, will help your colleague to draft a better research paper.
- You will be partnered with a colleague who does not share your expertise, something that often happens in actual professional practice. If your expertise is in engineering, you will be paired with a political scientist; conversely, if your expertise is in political science, you will be paired with an engineer.
- Your mission is to use your expertise to help your colleague to develop his or her understanding and description of the problem in nuclear security from your alternative perspective.

RPCR Steps

1. Get copy of colleague's RPPv2 (read, analyze)
2. Reread, analyze colleague's RPP
3. Identify the three most important issues from the perspective of your expertise about which your colleague needs to know in order to write an effective article that analyzes both the technical and political science aspects of the nuclear security problem.

RCPR Activity

- Analyze sample RCPR
 - technical
(https://courses.physics.illinois.edu/phys280/sp2022/docs-for-assignments/RCPR_engineering_example.docx)
 - political science
(https://courses.physics.illinois.edu/phys280/sp2022/docs-for-assignments/RCPR_policy_example.docx)
 - rubric
(https://courses.physics.illinois.edu/phys280/sp2020/rubrics/RCPR_rubric.docx)

Terrorism Incident Analysis

Watch this clip from The Peacemaker:
<https://www.youtube.com/watch?v=d5jxXkpstv4>

“Two trains collide in rural Russia, one of them housing nuclear weapons that go missing after the wreck, and the U.S. government is alerted. Nuclear specialist Dr. Julia Kelly (Nicole Kidman) believes that there will soon be a terrorist attack, so Lt. Col. Thomas Devoe (George Clooney) joins Dr. Kelly as they try to track down the warhead-stealing culprits. They learn that Yugoslav terrorist Gavrish (Marcel Iures) has his hands on the weapons, and he's plotting a devastating attack on New York.”

Writing Prompt

Imagine that you are Nicole Kidman's character, survivor, writing a report to supervisors about the event, justifying her decisions and actions and analyzing the probable aftermath:

1. **Justify your actions:** Why did you go into the crypt? Why did you and Clooney's character destroy the arrangement of the explosives?
2. **Analyze the aftermath:** What are the likely impacts of the radiation? to the economy? How should these be handled?

Expert Analysis

Disarmament fails

Destroy high explosive lens so the plutonium cannot be compressed into a supercritical mass (not symmetric). They could have also alternatively cut one of the wires or lengthened one (but for cinematic effect)

Aftermath issues: cleanup

Plutonium is dispersed to surroundings (dirty bomb)

Radiation exposure

RE3v1 Returned

- What are the main revision notes received? Prioritize them starting with higher order issues (perspective, purpose, organization, information, other genre characteristics) to lower order issues (copy editing, proofreading)