

PHYS/GLBL 280
Writing Lab 02/02/2026

Discussion of RE2v1

Formatting in Technical Writing

· In the Professional World:

- Formatting is the "First Impression."
- Non-compliant reports are often rejected unread.
- Messy format suggests careless research.

· For RE2v1 (CRS Report):

- You are acting as a professional government analyst.
- "Conformity to Conventions" is 15% of your grade.
- Small mistakes (wrong font, wrong date format) add up to big deductions

Feature	WRONG (Don't do this)	RIGHT (Do this)
Headings	Left-aligned, Small font	Centered, 16pt (Title), 12pt (Body)
Date	Informal (e.g., 2/09/26)	Formal (#/##/####) (2/06/2026)
Page Numbers	Bottom right / Top right	Centered
Paragraphs	Indented + Extra Space	<p>Choose One Style:</p> <ol style="list-style-type: none"> 1. Indent + No Space 2. No Indent + Space

Feature	WRONG (Don't do this)	RIGHT (Do this)
AI Disclosure	"I used ChatGPT." (Too simple)	Standard Format: Tool Name, Version, Date, Responsibility Statement.
Spacing	Double spaced	Single spaced throughout the essay.
Margins	Default Word Settings (1" all around)	Sides: 1.25" Top: 1.0" Bottom: 0.5"

RPP

Main Task: Draft a research paper proposal from an adopted expert perspective to define your project and receive feedback on it.

In addition to receiving a grade, your RPPv1 will be designated with either PASS or HOLD. This designation will be based on the suitability of your research question, thesis statement, and references. If you receive a HOLD, you must meet in person with a TA (note: The TA with which you consult does not need to be your writing lab TA).

You will revise and expand RPPv1 to produce RPPv2.

RPP

Step 1: Choose an Expert Role

Roles will be chosen and partners assigned in your writing lab.

Experts are often motivated to write to a broader audience than one composed only of other experts within their own field. To address a broader audience, an expert must accurately predict what readers are likely to know and what they will need to know in order to understand the writer's discussion. The expert must also consider the political and social contexts about a topic with which readers are already familiar and how ongoing conversations in other media are likely to have already shaped their audience's understanding of and attitudes toward the material they are presenting.

RPP

To begin the research paper assignment sequence, you will adopt the role of either a political scientist or engineer based on personal interest, career aspiration, academic preparation, and (due to course constraints) assignment from your writing lab TA. This role will determine the professional perspective you will emphasize in your own research proposal and paper (RPPv1, RPPv2, Rpv1, Rpv2). It will also determine the expertise you will contribute (in RPCR) to developing a peer partner's proposal. Your peer partner will have adopted the other role and will be assigned to you by your writing lab TA. Political scientists will help engineering peers to develop political and policy contexts for their technical discussions; engineers will help political-scientist peers to develop scientific and technological contexts for their policy discussions.

RPP

Step 2: Write Your Research Paper Proposal (RPPv1)

Electronic submission due Wednesday Feb. 11 at 10pm For RPPv1 you will follow the steps describe below. On the website is an example RPPv1 that we encourage you to emulate (except that yours should be single-spaced). Your RPPv1 will be evaluated using the rubric on the website.

The purpose of preparing the Research Paper Proposal (RPPv1) is to help you to organize your work for the research paper, gain the benefit of a colleague's insights into your topic from a different expert perspective, and receive early advice from the instructional staff. Doing so will help you to define and develop a suitable course of research and complete the initial draft of your research paper on time. You are strongly encouraged to seek guidance from the instructional staff while preparing your proposal

RPP

To complete an acceptable proposal, you must think deeply about your research question (i.e., a problem in contemporary global security and its possible solutions) and how you will address it, do a substantial amount of library research, formulate a thesis, and provide a list of the references on which you expect to base your research paper.

The research paper's primary purpose is to establish the nature and importance of a problem in global security from both a technical and policy perspective; its secondary purpose is to provide a recommendation on what the global community (or particular actors within that community) should do about the issue.

RPP

Development Process:

2.1 Choose Your Topic: You will develop a thought-provoking and well-informed discussion of a relatively current problem in global security based on one of the approved research topics, so choose something that will sustain your interest. Alternatively, you may propose a topic not listed here to the instructional staff, but, if you do, you must get explicit approval before you begin library research.

RPP

2.2: Define Your Research Question: From the topic you have selected, next identify a research question that has both technical and policy aspects. Your global security problem must be narrowly defined enough to be addressed adequately in a paper that is only 5–6 pages long. It must be current enough to seem interesting and topical to readers, but not so recent that research in the academic literature is impossible to find

RPP

A good research question is clear (readers "immediately understand what you're asking...because your question is short, conceptually straightforward, and jargon free"), relevant ("addresses an identifiable problem...offers to contribute a fascinating piece to a larger puzzle"), and researchable ("you can reasonably expect to answer your question with the resources at your disposal during" the time available for research) (Johnson, 2020). You should devote substantial effort to defining a good research question, because having a good research question is vital to the success of your RP. Your research question will guide your research and help you to collect the evidence you will need for your RP. To develop your question, you will need to do some preliminary research on your topic. We suggest consulting at least three books, chapters from books, or review papers on your topic, to ensure that you have an adequate overall perspective on your research question.

RPP

Do not choose a rapidly evolving research question, because events during the semester could then render your research paper obsolete or even irrelevant. Do not choose a question on which there is little or no publicly available information. As an example, "Nuclear Terrorist Sleeper Cells in the United States" is an interesting topic, but you would not be able to find much publicly available information about this topic.

For advice on developing a research question (which your thesis will answer), see the Indiana University Libraries handout and the George Mason University Writing Center handout. If you are having difficulty developing your research question, move on to the step 2.4 (literature survey) and then return to this step later.

RPP

2.3: Draft Your Thesis Statement: Your thesis statement will answer your research question (at this stage, it's more of a hypothesis: a "testable conjecture about what your research will demonstrate" [Johnson, 2020]).

Although it may seem too early to determine the final answer to your research question at this point, formulating a possible answer will help you choose sources to consider and begin to focus your analysis. You can modify your thesis as your knowledge and understanding of your research question increases.

For advice on writing a thesis statement, see the University of Illinois Writers Workshop Thesis Writing Tips; see an example from the University of Richmond Writing Center on how to develop an analytical thesis statement.

RPP

Reference Requirements for RPPv1: 3–5 sources (you will need to find at least 3 more sources for RPPv2). You may use no more than two of the assigned course readings as references. You may refine your reference list between the proposal and research paper (but you must seek instructional approval if you change your topic).

You are strongly encouraged to read and cite articles in professional and scholarly journals, such as *Arms Control Today*, *Bulletin of the Atomic Scientists*, *Foreign Affairs*, and *International Security*, or high-quality magazines that address current affairs, such as *The Atlantic*.

You may use one or two articles from high-quality newspapers, such as *The New York Times*, *The Washington Post*, the *Los Angeles Times*, *The Miami Herald*, and the *Wall Street Journal*, if they are essential to your thesis, but see the caution above against choosing a topic where the facts may change substantially during the semester.

RPP

You may also use the online documents posted on the Course Documents page of the old website and documents posted on the web sites of the U.S. government and the nongovernmental organizations listed on the Course Documents page. You may not use any other online resources without express written permission from one of the instructors. For every online reference included in your list of references, you must include the complete URL and the date and time that you last consulted that reference.

Citation Form Requirements: Since the Illini Journal of International Security uses the American Psychological Association (APA) form of citation, you are required to use it. For further information on style requirements, see the IJOIS style sheet.

Remember: AI cannot be cited as a fact source. All facts must be verified in the approved peer-reviewed journals or books listed above.

RPP

2.5: Refine Your Thesis Statement: If you haven't yet done so, refining your thesis now will help you to organize your paper and develop your analysis in a logical manner. You should have your thesis in final form before you begin outlining your paper.

2.6: Draft a Sentence-Type Outline of Your Research Paper: Write a sentence-style outline of the major sections and subsections of your RP. For tips on writing a sentence-style outline, see Celia Elliott's slides. The major sections do not need to be complete sentences, but the subsections (listed as bullet points) do—see example. You must have at least 4 bullet points. Each bullet point will be the topic sentence of a proposed paragraph in your research paper. For each bullet, provide a reference in APA format.

RPP

2.7: Sequence of author drafting and AI assisted analysis:

I. Drafting (author, no AI): select research topic, compose research question & thesis statement, identify references and draft the sentence type outline before consulting AI (theses are steps 2.1 – 2.6).

II. AI analysis (AI assisted): Develop a sequence of AI-prompts that aim to analyze your RPPv1. (1) Use a first prompt to define the work you are doing: developing a proposal for a research paper that defines the research topic, the research question and thesis statement as well as a sentence-based outline with references. (2) Use the second prompt to upload information: Your RPPv1, and the references you have identified. In following prompt(s) ask:

- Analyze the outline and its effectiveness in supporting the analysis of the research question and the resulting thesis statement. Make suggestions on how to strengthen the sentence-based outline and the thesis statement.
- Carry out a literature review with your AI-tool: for example: “For topic [research topic] find recent papers, summarize results, list citation trails and identify open questions” or “Find recent high-impact papers on [research topic] and list their key results and citations”.

III. Editing your draft: Carefully evaluate AI critique and selectively use suggestions made towards references, sentence-based outline and thesis statement. (In the writer’s memo provide a justification for the editorial changes you have made based on input from AI-tools).

IV. Verification: Verify all AI suggested references and facts.

RPP

In Writer's Memo:

I. Share the link(s) to your AI-prompt(s)

II. Write a paragraph describing how AI-tools were used in the editorial process.

III. Compare the AI-generated reference list with your final list; did the AI identify useful additional references? Were there false references suggested by your AI-tool?

IV. Write a paragraph justifying your final choice of references and sentence-based outline. Were the AI's reference and outline suggestions useful in improving the proposed structure of the research paper?

RPP

2.8: Submit your Research Paper Proposal (RPPv1): Submit electronic copies of your RPPv1 by the deadlines listed above (also on the Writing Assignments and Schedule pages).

Your submission must be a SINGLE document containing:

- o Proposal, including references
- o AI disclosure statement
- o Writer's Memo. Do not upload separate files.

2.9: If you receive a HOLD, meet with a TA: Your RPPv1 will be evaluated and marked either acceptable (PASS) or unacceptable (HOLD) based on your research question, thesis statement, and references. If you received a HOLD, you must meet with a TA, preferably your writing lab TA, to discuss your proposal and work with him or her to revise it and produce RPPv2.

RPP

RPPv1 Format Requirements In addition to the usual writing assignment format guidelines (which include single-spacing RPPv1), you must include the following sections in your proposal:

Topic: At the top of the first page, where the title would normally go, write the topic of your RP, which must be identical to one of the topics in the approved topics List. Or, if you have proposed and received approval for an alternative topic, write the name of your alternative topic followed by (alternative topic, approved) in parenthesis.

Expert Role: [Engineer or Political Scientist]

Partner's Name: Your partner was assigned in your Writing Lab.

Research Question: Present your research question. It should have potential for both technical and political discussion.

Thesis Statement: Present your thesis statement, which will answer your research question

RPP

Outline: Provide a sentence-type outline of your research paper. (We understand that the paragraphs in your actual RP may differ from the list given in your proposal.) This should include section headings (which do not need to be complete sentences) and bullet points (which do need to be complete sentences) within the sections. Each bullet point will be the topic sentence of a proposed paragraph in your research paper. Each sentence should be followed by a citation to one of your references. This is meant to link the bullet point to the research you have done. You must have at least 4 bullet point sentences. (Because you will not yet have received input from your colleague, your paper need not yet show a technical-policy balance. This will be required instead in Rpv1.)

Recommendation: End your research proposal with a statement of your tentative solution(s).

RPP

References (on a separate page): Under the centered heading "References," list 3–5 sources (articles, books, chapters in books) that you plan to use in writing your research paper—try to meet the source distribution requirements of the final research paper. Your reference list is not a bibliography (a general survey of literature on a topic): you should expect to cite every one of the sources in your reference list at least once in the text of your research paper. Remember, in the case of online sources, you may only use those that have been pre-approved. Do not cite AI tools directly. Your reference list should be in APA style. If you have questions, please refer to the example RPPv1 and ask the course staff.

RPP Expert Roles

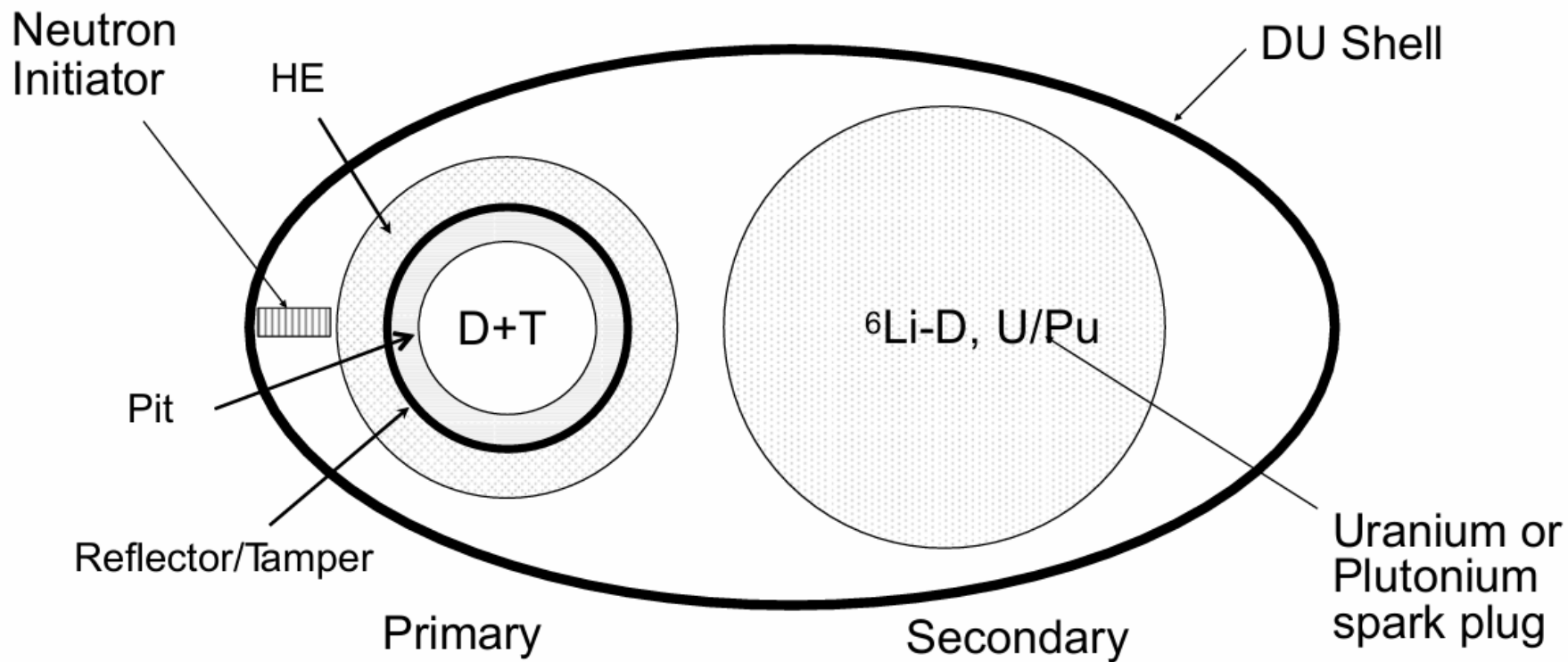
Each student must decide on whether to have a “political scientist” or “engineer” role.

Class should be split 50/50

Decide based on major/interests/future career goals

Thermonuclear Weapons Review

- Primary (boosted fission): A fission explosion using DT boosting to increase neutron production and efficiency
- Secondary (fusion + fission): Li-D fusion fuel is imploded by radiation from the primary; fast fusion neutrons cause additional fission
- **Detonation Sequence:**
 - 1. High explosives compress the primary core; a burst of neutrons from an initiator starts fission chain reaction
 - 2. Fission compresses DT, causing some fusion. This fusion produces higher energy neutrons than fission that greatly increase the primary's fission yield
 - 3. The primary emits intense x-rays that reflect from the shell, imploding the secondary
 - 4. Fusion begins in the compressed secondary; neutrons break lithium producing tritium that fuels fusion
 - 5. High-energy fusion neutrons induce fission in surrounding uranium, producing much of the total yield
 - 6. Released energy produces pressure causing rapid expansion, allowing neutrons to escape and ending nuclear reaction



Y_P = primary yield, Y_S = secondary yield, $Y = Y_P + Y_S$ = total yield

Activity

1. In groups, draw on a whiteboard our PHYS280 design of the two-stage thermonuclear weapon
2. Label each part
3. As a group, write approximately $\frac{1}{2}$ page describing this design and how it works
4. Join the Zoom link and be prepared to share your screen to show your writing exercise
5. After each group shares, all other groups will discuss and share one aspect they liked and one thing they would change

Policy Debate - Background

MOSCOW (AP) — The Kremlin said Thursday it regretted the expiration of the last remaining [nuclear arms pact](#) between Russia and the United States, while U.S. President Donald Trump declared he was against keeping its limits and wants a better deal.

The pact's termination left no caps on the two largest atomic arsenals for the first time in more than a half-century, fueling fears of [an unconstrained nuclear arms race](#).

Russian President Vladimir Putin last year declared his readiness to [stick to the treaty's limits for another year](#) if Washington followed suit, but Trump has ignored the offer and argued that he wants China to be a part of a new pact — something Beijing has rebuffed.

“Rather than extend ‘NEW START’ (A badly negotiated deal by the United States that, aside from everything else, is being grossly violated), we should have our Nuclear Experts work on a new, improved, and modernized Treaty that can last long into the future,” Trump posted on his Truth Social network.

Policy Debate - Rules

1. Divide into two teams
2. One team will defend the thesis statement; the other team will oppose
3. Discuss with team for 5 minutes. Choose one person to conduct an opening statement and another to conduct a closing argument.
4. 1 minute opening statement each side
5. Open discussion: do not interrupt each other. Everyone must participate.
6. 1 minute closing argument each side

Policy Debate - Thesis Statement

The United States should not agree to any interim arms agreements and should instead negotiate a 3-way treaty with Russia and China.