

### Essay Topic:

Writing groups will write an essay examining recent examples of cyberwar. Students will need to select a recent case study involving a state-sponsored cyberattack, and discuss the ways in which this attack is consistent or inconsistent with concepts drawn from classical strategy. Papers should be between 2500 and 3000 words (roughly 10-12 pages). A successful paper will describe the event being studied (no more than 2-3 pages), and then analyze the event with reference to classical thinkers such as Sun Tzu, Machiavelli, or Corbett. Papers should include a brief section (1-2 pages) discussing the implications of the case for contemporary cybersecurity.

Papers must have 4-5 scholarly or expert sources describing the cyberattack. Additionally, papers must discuss concepts from at least two of the classical thinkers (more than two are permitted, but not required). Papers will use in-text citations (name, date, and page number) and include a separate reference page (which does not apply to the document word count). Please refer to *The Publication Manual of the American Psychological Association 7<sup>th</sup> Edition* or to *The Purdue OWL's* APA guidelines for further details on citation formatting.

Groups may choose from the list of topics below, with the important caveat that students may **not** select topics that they have used as the basis for a previous assignment. Therefore, if a student presented on the OPM hack for Communications 256, it is not permissible to choose the OPM hack for this project.

The second case study will be assessed as follows. Groups will submit a group paper and receive a group grade that counts for 50% of the individual grade total. The other 50% is based on peer and instructor assessment of team member contributions. A low peer and instructor assessment will therefore result in a significantly reduced grade on the second case study. The peer assessment sheet available on D2L outlines the nature of the assessment in more detail.

The assignment is valued at 25% of the total class grade. Essays should be submitted to D2L for both ITSC 201 and Communications 256 by 2100 on April 18. Students who anticipate difficulties meeting deadlines should consult with the instructor as soon as possible.

### Topics

Groups may select from the topics indicated below.

- 1 Stuxnet and the cyberattack on Iranian nuclear development
- 2 The Russian attack on Ukrainian power generation, 2015-2016
- 3 The Office of Personal Management hack and associated attacks
- 4 North Korean Operations against Sony or the Central Bank of Bangladesh
- 5 Election interference (choose one election as the central case study)
- 6 The NotPetya attack
- 7 The Solarwinds attack
- 8 The Shadowbrokers hack and disclosures

### Resources

Students are encouraged to begin their research by consulting recent studies of cyberwar. The references below may be of particular interest, but these are merely a starting point.

- Buchanan, B. (2020). *The hacker and the state*. Harvard University Press.
- Greenberg, A. (2019). *Sandworm*. Doubleday.
- Kello, L. (2017). *The virtual weapon and international order*. Yale University Press.
- Maurer, T. (2018). *Cyber mercenaries: The state, hackers, and power*. Cambridge University Press.
- Rid, T. (2020). *Active measures*. Farrar, Strauss, and Giroux.
- Sanger, D. (2018). *The perfect weapon: War, sabotage, and fear in the cyber age*. Crown.
- Segal, A. (2016). *The hacked world order: How nations fight, trade, maneuver, and manipulate in the digital age*. Public Affairs.

Singer, P. (2018). *Likewar: The weaponization of social media*. Mariner.  
Watts, C. (2018). *Messing with the enemy*. Harper.  
Zetter, K. (2015). *Countdown to zeroday*. Broadway.

**Assessment:**

The rubric below will be used to assess essays.

	10	8	6	4	2
<b>Argument and Analysis</b>	Clear, easily identifiable logical flow to the argument, which is well-reasoned and well-supported. Weaknesses in argument are addressed.	Argument is generally clear, generally logical, broadly well-reasoned, and mostly well-supported. Some weaknesses in argument are addressed.	Argument is sometimes clear, logical, well-reasoned, and some evidence is cited. Flaws in the logical flow evident. Few weaknesses in argument are addressed.	Argument is confused, or lacking clear reasoning, strong logic, or relevant evidence. Logical flow difficult to discern. Weaknesses in argument abundant and significant.	Essay so poorly argued that no organizing logic evident.  No relevant evidence offered to support the argument.
<b>Citations and Evidence</b>	Citations conform to the APA Style Manual, with no errors. Evidence from readings is used extensively and accurately.	Citations generally conform to the APA Style Manual, with one or two errors. Evidence from readings is used regularly and mostly accurately.	Citations somewhat conform to the APA Style Manual, with three or more errors. Evidence from readings is sometimes used, or is generally accurate.	Citations are present, but do not conform to the APA Style Manual. Evidence from readings is often irrelevant, misunderstood, or inaccurate.	Citations are inconsistent, partial, or absent. Little or no accurate or relevant evidence is employed.
	5	4	3	2	1
<b>Thesis</b>	The thesis is clear, specific, original and well placed.	The thesis is generally strong, but lacks one of clarity, specificity, originality, or placement.	The thesis is apparent, but lacks two of clarity, specificity, originality, or placement.	The thesis is lacking or deficient in three aspects of clarity, specificity, originality, or placement.	Thesis is absent or unintelligible.
<b>Structure and Mechanics</b>	Structure clearly consistent with introduction and thesis. Few if any errors of grammar, word choice, punctuation, sentence structure, or spelling.	Structure generally consistent with introduction and thesis. Occasional unclear transitions or unfocused paragraphs. Occasional errors of grammar, word choice, punctuation, sentence structure, or spelling.	Structure often inconsistent with introduction and thesis. Transitions are abrupt or unfinished. Paragraphs often lack focus. Some errors of grammar, word choice, punctuation, sentence structure, or spelling.	Structure is quite confused. There is little apparent relationship with the thesis. Transitions rarely coherent. Paragraphs poorly structured. Frequent and persistent errors of grammar, word choice, punctuation, sentence structure, or spelling. Frequent fragments or run-on sentences.	No coherent structure discernible in essay or in paragraphs. Mechanical problems dominate essay and impair comprehensibility.