

The Politics of Cyber Security

University of Georgia
Department of International Affairs
Spring 2024

Instructor

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Office hour: **2-5 PM, Mondays by appointment.** You can sign up for an up-to-30-min office hour via Calendly (Just click it! https://calendly.com/jay_lee_uga/jay-lee-office-hours) Be EXPLICIT on whether you want it in person or on zoom. Also, **if you are not available during the time**, email me so that we can set up **a separate meeting**.

Course Information

Course: INTL 4666

Time: MWF 11:30 am-12:20 pm (50 min)

Location: Caldwell Hall 102

1. Course description and objectives

Through this course, we're going to study different topics of cybersecurity from the perspective of international relations. As an international relations professional, it is critical to build a comprehensive and systematic framework to understand emerging phenomena. This course covers from a history of the internet to various forms of cooperation and conflicts among various actors in cyberspace. Based on these understandings, we will discuss definitions of cybersecurity and future policy implications. As the field is full of dynamics, students are encouraged to do group work, especially presentations about the topics of their interest.

2. Books

You don't have to buy any book or material. All are uploaded at ELC.

Kizza, J. M., Kizza, W., & Wheeler. (2013). *Guide to computer network security* (Vol. 8). Berlin: Springer. (Free version is available at http://repository.psa.edu.my/xmlui/bitstream/handle/123456789/2022/2017_Book_GuideToComputerNetworkSecurity.pdf?sequence=1&isAllowed=y)

Tikk, E., & Kerttunen, M. (Eds.). (2020). *Routledge handbook of international cybersecurity*. Routledge.

Burgess, J. P. (Ed.). (2010). *Routledge Handbook of new security studies*. Routledge.

Recommended

Romaniuk, S. N., & Manjikian, M. (Eds.). (2021). *Routledge companion to global cybersecurity strategy*. Routledge.

Most readings for this course are either accessible through the University of Georgia library system or will be provided by the instructor.

3. Evaluation

Full marks: 100 points.

Do NOT plagiarize, if so, you will get yourself in trouble. Always use citations!

1) Active participation (20 points): I will grade your participation in the two ways.

- **10 points:** Please make sure that you've read and reflected on the assigned reading materials. Whenever you have them, at the beginning of classes, I will give you a simple quiz that you can answer easily once you read the materials. I marked when you will have the quizzes each week.

- **10 points:** I shall check attendance in every class, and you have three waiver tickets. It means I will not deduct any points until you hit the three absences. After the three absences, I will deduct 1 point from 10 points for each absence. I strongly recommend you not use the waiver tickets carelessly or soon coz you'll never know what will happen in three months. For example, you may get sick, have emergencies, etc. You don't need to email me about the reasons for your absence. When you are not present, that's it, REGARDLESS of the reason.

2) Group presentation (20 points): Group work. As a group, you're going to present twice during this semester up-to-date news or articles, to the class on the topics of your interest. I expect your team to submit the three – policy memo, presentation file, and contribution memo – and upload them at ELC 24 hours prior to the presentation.

- **Policy memo & Presentation file:** The policy memo should be no more than a two-page memo (single-spaced, font size 12). The memo should include: i) why you choose the news or articles, ii) how they are related to cybersecurity in international relations and their weaknesses & strengths, and iii) what possible policy implication. The presentation should be within 20 minutes including Q&A.

- **Contribution memo:** The contribution memo needs to include at least 3-4 sentences for each member on what he/she did for the group work. Starting the group work, you guys need to reach an agreement on who will do what and write it down. Afterward, check how much one has accomplished referring to the previous memo. Once y'all feel good, then submit the memo.

3) Midterm & Final Quiz (20 points)

- **Midterm quiz (10 points):** You'll be tested on what you learnt during Week 04, 05 and 06. A mix of multiple choices and short answers.

● **Final quiz (10 points):** You'll be tested on what you learnt during Week 12 and 13. A mix of multiple choices and short answers.

4) Two write-ups (20 points): Individual work. During this semester, you will produce two short (1,000 -1,500 words) write-ups in response to provided questions requiring you to demonstrate the knowledge that you learned from class coupled with your own thoughts and interpretations.

● First write-up (10 points): On Week 01 & 02 & 03

● Second write-up (10 points): On Week 08 & 09 & 10

5) Final Short Essay (20 points): Individual work. You can choose any topic as long as they are related to cybersecurity and write a 3–4 page essay. (single-spaced, font size 12) To lessen the burden, I recommend you develop your own study for your group projects.

● 1 page: Research question and Literature review. Choose 10-15 articles, give me the overview of, rather than summary of, them. During the process, you can discover what areas are understudied or which area you're particularly interested in. You are not allowed to cite the materials that we studied together in class as I want you to pioneer new articles that I didn't cover during lectures. However, you can reuse the citations for your group works but less than a half of the entire citations.

● 1 and a half page: Choose four to five articles out of the 10-15 articles aforementioned and explain why you choose the five (or four) articles including i) their summary, ii) their weaknesses and strengths, and iii) how they are interrelated to each other.

● A half page: A conclusion

4. Grading Scale

A	94 to 100
A-	90 to 93.9
B+	87 to 89.9
B	84 to 86.9
B-	80 to 83.9
C+	77 to 79.9
C	74 to 76.9
C-	70 to 73.9
D	60 to 69.9
F	59 and below

5. Administrative Policy

5.1. Academic Honesty

The course syllabus is a rough outline for the course; instructors need to inform changes to the class. The University of Georgia's "Culture of Honesty" (http://www.uga.edu/honesty/ahpd/culture_honesty.htm) has requirements that must be met by all academic work. It is your responsibility to familiarize yourself with these requirements before beginning any academic work. Our academic dishonesty policy is straightforward: Avoid plagiarism. You will receive a failing grade in the course if you turn in a written assignment that is (in part) not your own. Disciplinary actions that could result in your dismissal from the university could be taken.

5.2 Prohibition on Recording Lectures

In the absence of written authorization from the UGA Disability Resource Center, students may not make a visual or audio recording of any aspect of this course.

5.3 Students with Disabilities

If you plan to request accommodations for a disability, please register with the Disability Resource Center (DRC). The DRC can be reached by visiting Clark Howell Hall, by calling 706-542-8719 (voice) or 706-542-8778 (TTY), or by visiting <http://drc.uga.edu>

5.4 Resources for Mental Health and Wellness

Contact Student Care and Outreach in the Division of Student Affairs at 706-542-7774 or go to <https://sco.uga.edu> if you or someone you know needs help. By putting you in touch with the proper resources or services, they will assist you in navigating any challenging situations you might be dealing with. For students looking for crisis help or mental health services, UGA has a number of resources available at <https://www.uhs.uga.edu/bewelluga/bewelluga>. Please visit BeWellUGA (<https://www.uhs.uga.edu/bewelluga/bewelluga>) for a list of FREE programs, classes, mentoring, and health coaching given by certified clinicians and health educators in the University Health Center if you need assistance managing stress, anxiety, relationships, etc. The UGA App gives users access to more resources.

5.5 Diversity and Inclusion

The University of Georgia is dedicated to upholding a just and courteous atmosphere for employment, residence, and education. To that end, the University forbids harassment of or discrimination against any person on campus due to race, color, sex (including sexual harassment and pregnancy), sexual orientation, gender identity, ethnicity or national origin, religion, age, genetic information, disability, or veteran status by any member of the University Community in accordance with federal and state law, University System of Georgia policy, and University policy.

6. Course Schedule

This schedule is a suggestion for the class and is open to modification at my discretion. The underlined dates are assigned for group presentations. Watch or read assigned materials before class.

Week01 (Jan 8, 10, 12): Introduction

Jan 8

- Course introduction (survey: why are you taking this course? what do you want to achieve?)

Jan 10

- Code Wars: America's Cyber Threat. Produced by Cnbc, Films Media Group, 2011. Films On Demand, fod.infobase.com/PortalPlaylists.aspx?wID=103311&xtid=47288. (Accessed 4 Jan. 2024.)
- A short quiz on the video after watching it.

Jan 12

- Cyber Jihad. Produced by NPO/Netherlands Public Broadcasting, Films Media Group, 2016. Films On Demand, fod.infobase.com/PortalPlaylists.aspx?wID=103311&xtid=129510. (Accessed 4 Jan. 2024.)
- A short quiz on the video after watching it.

Recommended

- The Internet Hall of Fame: <https://www.internethalloffame.org/about/>
- IEEE (Institute of Electrical and Electronics Engineers) Computing Conversations: <https://www.youtube.com/playlist?list=PL4660FB7F523B1770>

Week02 (Jan 15, 17, 19): What is computer & the Internet 01

Jan 15

- Group formation: Group works are important in our class. Based on your interest of topic, from a group. No more than four people in one group.

Jan 17

- A short quiz
- Domanski, R. J. (2015). Who governs the Internet?: A political architecture. Lexington Books. Chapter 1. pp.3-24.

Jan 19

- A short quiz

- Domanski, R. J. (2015). Who governs the Internet?: A political architecture. Lexington Books. Chapter 2. pp.25-39.

Recommended

- Youtube Lecture, by David Clark (The Future of the Internet with David Clark 2021): <https://www.youtube.com/watch?v=2-l841nqKHs>
- WAN vs. LAN: Comparing Wide Area Network to Local Area Network: <https://www.ipxo.com/blog/wan-vs-lan/>
- Burgess, J. P. (Ed.). Chapter 16 in *The Routledge Handbook of new security studies*. Routledge. 2010.

Week03 (Jan 22, 24, 26): What is computer & the Internet 02

Jan 22

- A short quiz
- Domanski, R. J. (2015). Who governs the Internet?: A political architecture. Lexington Books. Chapter 3. pp.41-44.

Jan 24

- Review of the materials learnt during Week 01,02, and 03, and Q&A

Jan 26

- Review of the materials learnt during Week 01,02, and 03, and Q&A

Recommended

Hafner, K., & Lyon, M. (1998). *Where wizards stay up late: The origins of the Internet*. Simon and Schuster.

Berners-Lee, T. (1999). *Weaving the Web: The original design and ultimate destiny of the World Wide Web by its inventor*. Harper San Francisco.

Gillies, J., & Cailliau, R. (2000). *How the Web was born: The story of the World Wide Web*. Oxford University Press, USA.

Week04 (Jan 29, 31, Feb 1): Cybercrime, Terrorism, and Cyberwarfare 01

First Write-up: Due Jan 28, 11:59 p.m.

Jan 29

- A short quiz
- Amoroso, E. G., & Amoroso, M. E. (2017). From CIA to APT: An introduction to cyber security. Independently published. pp. 4-18.

Jan 31

- A short quiz
- Amoroso, E. G., & Amoroso, M. E. (2017). From CIA to APT: An introduction to cyber security. Independently published. pp. 19-31.

Feb 1

- Group presentations

Recommended

Cavelty, Myriam Dunn. "Cyber-terror—looming threat or phantom menace? The framing of the US cyber-threat debate." *Journal of Information Technology & Politics* 4.1 (2008): 19-36.

Devost, Matthew G., Brian K. Houghton, and Neal Allen Pollard. "Information terrorism: Political violence in the information age." *Terrorism and Political Violence* 9.1 (1997): 72-83.

Bronk, C. (2016). *Cyber threat: The rise of information geopolitics in us national security*. Bloomsbury Publishing USA.

Week05 (Feb 5, 7, 9): Cybercrime, Terrorism, and Cyberwarfare 02

Feb 5

- A short quiz
- Singer, P. W. Friedman A. (2014) *Cybersecurity and Cyberwar: What Everyone Needs to Know*. Oxford Press. pp. 67-76, 96-102.

Feb 7

- A short quiz
- Singer, P. W. Friedman A. (2014) *Cybersecurity and Cyberwar: What Everyone Needs to Know*. Oxford Press. pp. 120-121, 126-147.

Feb 9

- Group presentations

Recommended

Kay, Sean. Chapters 1, 2 and 3 in *Global Security in the Twenty-first Century*. Rowman and Littlefield Publishers, 2011.

Finklea& Theohary, Cybercrime: Conceptual Issues for Congress and U.S. Law Enforcement, Congressional Research Service, Jan 2015. (downloadable at <https://sgp.fas.org/crs/misc/R42547.pdf>)

Singer, P. W. Friedman A. Other parts in *Cybersecurity and Cyberwar: What Everyone Needs to Know*. Oxford Press. 2014

Mehan, J. (2014). *Cyber War, Cyber Terror, Cyber Crime and Cyber Activism: An in-depth*

guide to the role of standards in the cybersecurity environment. IT Governance Publishing.

Week06 (Feb 12, 14, 16): Cybercrime, Terrorism, and Cyberwarfare 03

Feb 12

- A short quiz
- Gallagher, Borchgraze, Cillusso, & Webster, W. H. (1998). *Cybercrime Cyberterrorism Cyberwarfare: Averting an Electronic Waterloo*. Center for Strategic & International Studies. pp.39-47.

Feb 14

- A short quiz
- Gallagher, Borchgraze, Cillusso, & Webster, W. H. (1998). *Cybercrime Cyberterrorism Cyberwarfare: Averting an Electronic Waterloo*. Center for Strategic & International Studies. pp.48-62.

Feb 16

- Group presentations

Recommended

Weinberger, David. *Everyday chaos: technology, complexity, and how we're thriving in a new world of possibility*. Harvard Business Press, 2019.

Bambauer, D. E. (2012). *Conundrum*. *Minnesota Law Review*, 96(2), 584–674.

Choucri, Nazli. "Co-evolution of cyberspace and international relations: New challenges for the social sciences." (2014). (downloadable at <https://dspace.mit.edu/bitstream/handle/1721.1/141686/Choucri%20%282013%29%20Co-evolution%20of%20cyberspace%20and%20international%20relations.pdf?sequence=1&isAllowed=y>)

Zittrain, J. (2019) The Hidden Costs of Automated Thinking. *The New Yorker*: <https://www.newyorker.com/tech/annals-of-technology/the-hidden-costs-of-automated-thinking>

Week07 (Feb 19, 21, 23): Review Session

Feb 19

- Review of the materials learnt during Week 04,05, and 06, and Q&A

Feb 21

- Review of the materials learnt during Week 04,05, and 06, and Q&A

Feb 23

- **Midterm quiz**: You'll be tested on what you learnt in Week 04, 05 and 06. A mix of multiple choices and short answers.

Week08 (Feb 26, 28, Mar 1): Cyber Governance 01

Feb 26

- A short quiz
- Besen, Stanley M., and Joseph Farrell. "Choosing how to compete: Strategies and tactics in standardization." *Journal of economic perspectives* 8.2 (1994): 117-131.

Feb 28

- A short quiz
- DeNardis, L. (2009). *Protocol politics: The globalization of Internet governance*. MIT Press. pp. 139-159.

Mar 1

- Group presentations

Recommended

Jayawardane, Sash, J. E. Larik, and Erin Jackson. *Cyber governance: Challenges, solutions, and lessons for effective global governance*. (2015).

Kruger, Internet Governance and the Domain Name System: Issues for Congress, *Congressional Research Service*, Nov 2016. (downloadable at <https://sgp.fas.org/crs/misc/R42351.pdf>)

Malcolm, J. M. (2008). *Multi-stakeholder public policy governance and its application to the Internet Governance Forum* (Doctoral dissertation, Murdoch University).

Week09 (Mar 11, 13, 15): Cyber Governance 02

Mar 11

- A short quiz
- DeNardis, L. (2009). *Protocol politics: The globalization of Internet governance*. MIT Press. pp. 159 – 177.

Mar 13

- A short quiz
- DeNardis, L. (2009). *Protocol politics: The globalization of Internet governance*. MIT Press. pp. 178 – 185.

Mar 15

- Group presentations

Recommended

Clark, David D., John Wroclawski, et al. "Tussle in Cyberspace: Defining Tomorrow's Internet." *IEEE/ACM Transactions on Networking* 13, no. 3 (2005): 462–75.

DeNardis, L. (2009). Other parts in Protocol politics: *The globalization of Internet governance*. MIT Press.

Week10 (Mar 18, 20, 22): Cyber Governance 03

Mar 18

- A short quiz
- DeNardis, L. (2009). *Protocol politics: The globalization of Internet governance*. MIT Press. pp. 187 – 208.

Mar 20

- A short quiz
- DeNardis, L. (2009). *Protocol politics: The globalization of Internet governance*. MIT Press. pp. 208 – 230.

Mar 22

- Group presentations

Recommended

Houser, K. A., & Voss, W. G. (2018). GDPR: The end of Google and Facebook or a new paradigm in data privacy. *Rich. JL & Tech.*, 25, 1.

Gilman, M. E. (2020). Five privacy principles (from the GDPR) the United States should adopt to advance economic justice. *Ariz. St. LJ*, 52, 368.

Iyer, S. (2011). Cyber security for smart grid, cryptography, and privacy. *International Journal of Digital Multimedia Broadcasting*, 2011.

Maleh, Y., Shojafar, M., Alazab, M., & Romdhani, I. (Eds.). (2020). *Blockchain for cybersecurity and privacy: architectures, challenges, and applications*.

Rustad, M. L., & Koenig, T. H. (2019). Towards a global data privacy standard. *Fla. L. Rev.*, 71, 365. Dec 1

Week11 (Mar 25, 27, 29): Review Session

Mar 25

- Review of the materials learnt during Week 08,09, and 10, and Q&A

Mar 27

- Review of the materials learnt during Week 08,09, and 10, and Q&A

Mar 29

- Group presentations

Week12 (Apr 1, 3, 5): Privacy and Data Protection01

Write-up 02: Due Mar 31, 11:59 p.m.

Apr 1

- A short quiz
- The Economics of Personal Data and the Economics of Privacy. 2010. *OCED Privacy Guidelines*

Apr 3

- A short quiz
- Wagner, T. (2017). The main differences between internet privacy in the US and the EU.
- Schwartz, P. M. (2002). German and US telecommunications privacy law: legal regulation of domestic law enforcement surveillance. *Hastings LJ*, 54, 751.

Apr 5

- Group presentations
- Instructions on the final paper

Week13 (Apr 8, 10, 12): Privacy and Data Protection02

Apr 8

- Lecture

Apr 10

- Lecture

Apr 12

- Group presentations

Week14 (Apr 15, 17, 19): Review Session

Apr 15

- Review of the materials learnt during Week 12 and 13, and Q&A

Apr 17

- **Final quiz**: You'll be tested on what you learnt in Week 12 and 13. A mix of multiple choices and short answers.

Apr 19

- Group presentations

Week15 (Apr 22, 24, 26): IR Theories01

Apr 22

- A short quiz
- Sørensen, G., Møller, J., & Jackson, R. H. (2016). *Introduction to international relations: theories and approaches (6thedn)*. Oxford university press. pp. 62-63, 67-71, 75-82.

Apr 24

- A short quiz
- Sørensen, G., Møller, J., & Jackson, R. H. (2016). *Introduction to international relations: theories and approaches (6thedn)*. Oxford university press. pp. 96-99, 103-122.

Apr 26

- Group presentations

Recommended

Choucri, Nazli, and David D. Clark. "Who controls cyberspace?." *Bulletin of the Atomic Scientists* 69.5 (2013): 21-31.

Choucri, Nazli, and David D. Clark. *Cyberspace and International Relations: Toward an Integrated System*. Version 8-25 for *internal ECIR review*, August 2011.

McCarthy, D. R. (Ed.). (2017). *Technology and world politics: An introduction*. Routledge.

Week16 (Apr 29, 31, May 1): IR Theories02

Final Paper: Due May 5, 11:59 p.m.

Apr 29

- A short quiz
- Sørensen, G., Møller, J., & Jackson, R. H. (2016). *Introduction to international relations: theories and approaches (6thedn)*. Oxford university press. pp.205-206, 212-225.

Apr 31

- A short quiz
- Deibert, Ronald J., and Masashi Crete-Nishihata. "Global governance and the spread of cyberspace controls." *Global Governance* 18 (2012): 339.

May 1

- Wrap-up

Recommended

Kay, Sean. Chapters 1, 2, 3, and 6 in *Global Security in the Twenty-first Century*. Rowman and Littlefield Publishers, 2011.

Tikk, E., & Kerttunen, M. (Eds.). Chapter 29 in *Routledge handbook of international cybersecurity*. Routledge. 2020.