

**PSCI / PPOL 4302**  
**Data and Policy**  
SPRING 2021

**Instructor:** Vito D’Orazio

**Time and Location:** T, Th 1:00-2:15pm

**Modality:** Remote, Synchronous

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**Office Phone:** 972-883-6212

**Office Hours:** Individual or group meetings on MS Teams available by appointment.

**Teaching Assistant:** Kiwan Park

**TA Office Hours:** Wednesday, 10-12, MS Teams

**Email:** kiwan.park@utdallas.edu

## Course Modality and Expectations

**Instructional Mode** The instructional mode is *remote*. This means “synchronous online learning at the day and time of the class. The instructor delivers the instruction from home or the office. Students complete the course at a distance.” See <https://covid.utdallas.edu/students-families-info/spring-2021-registration/> for more information.

**Course Platform** The class will meet at our scheduled time on MS Teams. Students can join and view meeting details by selecting the Calendar tab on Teams. For group projects, students will meet on MS Teams at a mutually agreeable time.

**Expectations** Students who do not choose the asynchronous option are expected to attend class at our regularly scheduled time and to participate as if the class were in-person. Class discussion is a critical part of learning, so all students are expected to complete the assignments and come to class prepared to discuss.

**Asynchronous Learning Guidelines** Students may select the asynchronous option at any time. Students who select the asynchronous option must notify the instructor. For each class that the student is engaged in asynchronous learning, the student is required to complete the asynchronous assignment, described below in the Attendance and Participation section.

For more information on asynchronous learning: <https://covid.utdallas.edu/response/faq/\#asynchronous>

## COVID-19 Guidelines and Resources

The information contained in the following link lists the University's COVID-19 resources for students and instructors of record.

Please see <http://go.utdallas.edu/syllabus-policies>.

## Course Description

This course examines the role of cyberspace at three levels: the individual, group and society, and international. Throughout, we will focus on questions of security and governance.

What is cyberspace? According to the US Department of Defense:

Cyberspace consists of many different and often overlapping networks, as well as the nodes (any device or logical location with an Internet protocol address or other analogous identifier) on those networks, and the system data (such as routing tables) that support them. Cyberspace can be described in terms of three layers: physical network, logical network, and cyber-persona. The physical network layer of cyberspace is comprised of the geographic component and the physical network components. It is the medium where the data travel. The logical network layer consists of those elements of the network that are related to one another in a way that is abstracted from the physical network, i.e., the form or relationships are not tied to an individual, specific path, or node. A simple example is any Web site that is hosted on servers in multiple physical locations where all content can be accessed through a single uniform resource locator. The cyber-persona layer represents yet a higher level of abstraction of the logical network in cyberspace; it uses the rules that apply in the logical network layer to develop a digital representation of an individual or entity identity in cyberspace. The cyber-persona layer consists of the people actually on the network.

**Individual:** Data is collected on all of us, nearly all the time, by many types of actors—government and corporate, domestic and international. Much of this data is just a by-product of our everyday lives, sometimes referred to as our *digital breadcrumbs*. What does this data look like? Who owns it? What are the policies that determine how business and government may acquire and use our data? How does data in the hands of government threaten our privacy? What is our right to privacy to begin with? How does data in the hands of government promote security? How much data are we willing to let the government have? This is the first part of the course, with an emphasis on the individual and a focus on the United States.

**Group and society:** How do governments around the world use data to promote stability and combat threats of rebellion, protest, and terrorism? How do governments repress dissent and censor in cyberspace? Many people around the world, including the United States, have legitimate grievances against their government. What is the role of cyberspace

in making those grievances known? What is its role in electoral processes? This is the second part of the course, with an emphasis on the role of cyberspace in the relationship between the state and domestic actors.

**International:** We have heard of things like cyberwarfare and cyberattacks—but what are these things? Are they really any different from conventional warfare? What incentives do states have to engage in cyberwarfare? In what sense do the actions states take to promote their cybersecurity encourage others to do the same? A century ago, the machine gun proved to be an incredibly valuable defensive weapon. Are cyberattacks an incredibly valuable offensive weapon? What can states do to defend themselves against cyber threats? This is the third part of the course, with an emphasis on the role of cyberspace in international relations.

## Learning Objectives

This course has three learning objectives: (1) to understand the above definition of cyberspace, in all its complexities; (2) to understand how and why government and other actors use cyberspace to achieve policy objectives; (3) to think critically about the impact of cyberspace on individuals, groups, and relations among states.

These three learning objectives will be assessed throughout the course's homework assignments and the three quizzes. Each of these are writing assignments, and the goal for each student is to demonstrate an analysis and synthesis of course materials.

## Course Requirements

You are required to complete a reading assignment before every class, with exceptions noted below. There will be eleven graded homework assignments and three quizzes.

### Final Grade Composition

Eleven Homeworks	30% (3% each, 1 bonus)
Three Quizzes	60%
Attendance & Participation	10%

### Attendance and participation (10%)

Show up, be attentive, and participate to get full credit.

**For asynchronous students**, or for any class where the asynchronous option is selected, attendance and participation will be assessed with the asynchronous assignment. Asynchronous students are expected to submit #1 and #2 *before* class, and #3 *after* class (e.g., if class is Tuesday, submit #3 by Wednesday at 11:59 pm).

1. Identify and describe one core concept from the reading

2. Write one paragraph discussing how you would teach this concept to your classmates
3. Post-class follow-up
  - Watch the entire recorded lesson on MS Stream
  - Discuss how the instructor taught the concept to the class. What you would have done differently? What you would have kept the same?

**The asynchronous assignment is to be submitted on eLearning, and is in addition to any other assignments due that day.**

### Short homework assignments (30%)

There will be eleven short homework assignments to be submitted through eLearning. For each assignment (unless otherwise noted):

1. Summarize the reading (1 paragraph)
  - Keep this concise, but be sure to summarize the entire reading and not just part of it. For example, what is the key point that the author is trying to make? What is the method used to make that point? What evidence is presented in support of that point?
2. Raise two thoughtful questions
  - These should not be straightforward “yes or no” type questions. Instead, try to raise “why” and “how” questions. The difference is often subtle, but can encourage you to think about the underlying processes. For example, instead of asking *whether* the 2020 US military strike that killed Iranian General Qassem Soleimani will escalate tensions between Iran and Iraq, ask *how* the strike could increase tensions between Iran and Iraq.
3. Discuss your reaction to the reading (1-2 paragraphs)
  - The reaction (or response) should demonstrate elements of comparison, evaluation, synthesis, or creativity. You should feel free to write about anything related to the reading, and not limit yourself to only the reading itself. For example, incorporate current events, other readings from this class or other classes, or things that you’ve discussed in this class or elsewhere. You might consider how the author’s argument compares with that of others. Or, whether you agree with the author’s argument and why? Can you provide cases that the theory does not support? For example, if the author is arguing that uncertainty is a cause of conflict escalation, can you think of cases where there was very little uncertainty among actors and yet the conflict escalated anyway? If so, then perhaps there’s more to escalation than just uncertainty. Feel free to get creative with your reaction.

Each assignment is due midnight **the day before class**. For example, if class is January 1, complete the assignment and submit through eLearning by 11:59 on December 31. The assignment and instructions for completion will be posted to eLearning one week in advance.

Note that there are eleven homework assignments, but that you cannot receive more than 30 points toward your final grade. Thus, if you complete all eleven assignments and your scores sum to 31, 32, or 33, you still only receive 30 points toward your final grade.

### Quizzes (20% each)

A rubric for the quiz grading has been posted to eLearning. You should familiarize yourself with this rubric.

**Essay Quiz:** Each quiz is an open book exam. You will be provided with two essay questions, will pick one, and write a *one page* essay on it. Essays should include in-text citations from course readings. If you cite readings that are not required, include their citation in a reference list at the end of your essay. The reference list will not count towards your one page limit. A perfect essay has a clearly stated thesis that is supported with facts and examples using the vocabulary of the class. It demonstrates both analysis and synthesis of course materials. The structure and organization make sense, and include an introduction, conclusion (which may be very short), a thesis, and topic sentences. The writing is clear, precise, and deliberate—grammar and spelling do not need to be perfect, but the writing must be get the point across in an understandable way. The vocabulary that we use in class is incorporated into the arguments. All parts of the question are answered. Finally, to get above a 90, the answer must be creative. Hypotheticals, counterfactuals, and new applications are some ways to be creative in a response.

### Grade Scale

A+	≥ 97%	B	= 83-86%	C-	70-72%
A	= 93-96%	B-	= 80-82%	D	65-69%
A-	= 90-92%	C+	= 77-79%	F	≤ 64%
B+	= 87-89%	C	= 73-76%		

See <http://catalog.utdallas.edu/now/undergraduate/policies/academic> for additional information about university grading policies.

## UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus: <http://go.utdallas.edu/syllabus-policies>.

## Required Texts

- Schneier, B. (2018). *Click Here to Kill Everybody: Security and Survival in a Hyper-Connected World*. Norton. ISBN: 978-0393608885
- Tufekci, Z. (2017). *Twitter and tear gas: The power and fragility of networked protest*. Yale University Press. ISBN-13: 978-0-300-21512-0
  - Full text available here: <https://www.twitterandteargas.org/downloads/twitter-and-tear-gas-by-zeynep-tufekci.pdf>
- Buchanan, B. (2017). *The Cybersecurity dilemma: Hacking, trust and fear between nations*. Oxford University Press. ISBN: 978-0190665012
- Additional readings are available through the library and will be made available online. Students are not required to print materials.

## Course Outline

### Part I: The Individual and Data

#### Day 1: Introductions and Syllabus

January 19

- *V for Vendetta*, ch. 5

#### Day 2: The Right to Privacy I

January 21

- Warren, S. D. and Brandeis, L. D. (1890). The right to privacy. *Harvard law review*, pages 193–220

#### Day 3: The Right to Privacy II

January 26

- House, W. (2012). Consumer data privacy in a networked world: A framework for protecting privacy and promoting innovation in the global digital economy. *White House, Washington, DC*, pages 1–62
- Homework 1

#### Day 4: Trends in Connectivity I

January 28

- Schneier: Introduction, Ch 1, 2

#### Day 5: Trends in Connectivity II

February 2

- Schneier: Ch 3, 4, 5
- Homework 2

- Day 6: Policy Solutions I** **February 4**
- Schneier: Ch 6, 7, 8, 9
- Day 7: Policy Solutions II** **February 9**
- Schneier: Ch 10, 11, 12, Conclusion
  - Homework 3
- Day 8: CLASS ASYNCHRONOUS Section 702** **February 11**
- Lawfare Podcast: Episode 230: Matt Olson on the Future of 702
  - Lawfare Podcast: Jim Baker and Carl Ghattas on Section 702
  - Complete the asynchronous assignment, parts 1 and 2 due before class on **Tuesday, February 23**, and part 3 due after class by end of day on **Wednesday, February 24**.
- Day 9: CLASS CANCELED ~~Sovereignty and Surveillance~~** **February 16**
- Bauman, Z., Bigo, D., Esteves, P., Guild, E., Jabri, V., Lyon, D., and Walker, R. B. (2014). After Snowden: Rethinking the impact of surveillance. *International political sociology*, 8(2):121–144
  - ~~Homework 4~~
- Day 10: CLASS CANCELED ~~Social Media and Surveillance~~** **February 18**
- Deibert, R. J. (2019). The road to digital unfreedom: Three painful truths about social media. *Journal of Democracy*, 30(1):25–39
- Day 11: Section 702, Sovereignty, and Surveillance** **February 23**
- Lawfare Podcast: Episode 230: Matt Olson on the Future of 702
  - Lawfare Podcast: Jim Baker and Carl Ghattas on Section 702
  - Bauman, Z., Bigo, D., Esteves, P., Guild, E., Jabri, V., Lyon, D., and Walker, R. B. (2014). After Snowden: Rethinking the impact of surveillance. *International political sociology*, 8(2):121–144
- Day 12: Quiz 1** **February 25**
- Quiz I covering Part I of the course

## Part II: The State and Domestic Data

### Day 13: The Zapatista Effect March 2

- Cleaver Jr, H. M. (1998). The zapatista effect: The internet and the rise of an alternative political fabric. *Journal of International Affairs*, pages 621–640

### Day 14: Social Media and Protest Mobilization March 4

- Breuer, A., Landman, T., and Farquhar, D. (2015). Social media and protest mobilization: Evidence from the tunisian revolution. *Democratization*, 22(4):764–792
- Homework 5

### Day 15: Networked Protest March 9

- Tufekci: Intro, Ch 1, 2

### Day 16: Networked Protest March 11

- Tufekci: Ch 3, 4
- Homework 6

### Day 17: Networked Protest March 23

- Tufekci: Ch 5, 6, 7

### Day 18: Networked Protest March 25

- Tufekci: Ch 8, 9, Epi
- Homework 7

### Day 19: China March 30

- Morozov, E. (2009). Iran: Downside to the” twitter revolution”. *Dissent*, 56(4):10–14
- King, G., Pan, J., and Roberts, M. E. (2017). How the chinese government fabricates social media posts for strategic distraction, not engaged argument. *American Political Science Review*, 111(3):484–501

### Day 20: Repression Technology April 1

- Gohdes, A. R. (2020). Repression technology: Internet accessibility and state violence. *American Journal of Political Science*
- Homework 8

**Day 21: Quiz 2** **April 6**

- Quiz 2 covering Part II of the course

**Part III: State-to-State Data and Cyberwar****Day 22: Cyber Power** **April 8**

- Nye Jr, J. S. (2010). Cyber power. Technical report, Harvard University Belfer Center for Science and International Affairs. <https://apps.dtic.mil/dtic/tr/fulltext/u2/a522626.pdf>

**Day 23: Security Dilemma and Cyber Offense** **April 13**

- Buchanan: Introduction, Ch 1, 2
- Homework 9

**Day 24: Cyber Defense and Threats** **April 15**

- Buchanan: Ch 3, 4

**Day 25: Mitigation and Information** **April 20**

- Buchanan: Ch 5, 6
- Homework 10

**Day 26: Limitations and Solutions** **April 22**

- Buchanan: Ch 7, 8, Conclusion

**Day 27: Stuxnet** **April 27**

- Lindsay, J. R. (2013). Stuxnet and the limits of cyber warfare. *Security Studies*, 22(3):365–404
- Homework 11

**Day 28: Myth of Cyberwar** **April 29**

- Gartzke, E. (2013). The myth of cyberwar: bringing war in cyberspace back down to earth. *International Security*, 38(2):41–73

**Day 29: Cyber Escalations** **May 4**

- Kreps, S. and Schneider, J. (2019). Escalation firebreaks in the cyber, conventional, and nuclear domains: Moving beyond effects-based logics. *Journal of Cybersecurity*, 5(1):tyz007

**Day 30: Quiz 3**

**May 6**

- Quiz 3 covering Part III of the course

## Class Participation

Regular class participation is expected regardless of course modality. Students who fail to participate in class regularly are inviting scholastic difficulty. A portion of the grade for this course is directly tied to your participation in this class. It also includes engaging in group or other activities during class that solicit your feedback on homework assignments, readings, or materials covered in the lectures (and/or labs). Class participation is documented by faculty. Successful participation is defined as consistently adhering to University requirements, as presented in this syllabus. Failure to comply with these University requirements is a violation of the Student Code of Conduct: <https://policy.utdallas.edu/utdsp5003>.

## Class Recordings

Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student AccessAbility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Conduct: <https://policy.utdallas.edu/utdsp5003>.

The instructor may record meetings of this course. Any recordings will be available to all students registered for this class as they are intended to supplement the classroom experience. Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student AccessAbility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. If the instructor or a UTD school/department/office plans any other uses for the recordings, consent of the students identifiable in the recordings is required prior to such use unless an exception is allowed by law. Failure to comply with these University requirements is a violation of the Student Code of Conduct: <https://policy.utdallas.edu/utdsp5003>.

## Class Materials

The Instructor may provide class materials that will be made available to all students registered for this class as they are intended to supplement the classroom experience. These materials may be downloaded during the course, however, these materials are for registered students' use only. Classroom materials may not be reproduced or shared with those not in class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Conduct: <https://policy.utdallas.edu/utdsp5003>.

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## Additional Information and Resources

### Technical Requirements

In addition to a confident level of computer and Internet literacy, certain minimum technical requirements must be met to enable a successful learning experience. Please review the important technical requirements on the Getting Started with eLearning webpage: <https://ets.utdallas.edu/elearning/students/current/getting-started>.

### Course Access and Navigation

This course can be accessed using your UT Dallas NetID account on the eLearning website: [elearning.utdallas.edu](https://ets.utdallas.edu).

Please see the course access and navigation section of the Getting Started with eLearning webpage for more information: <https://ets.utdallas.edu/elearning/students/current/getting-started>.

To become familiar with the eLearning tool, please see the Student eLearning Tutorials webpage: <https://ets.utdallas.edu/elearning/students/current/tutorials>

UT Dallas provides eLearning technical support 24 hours a day, 7 days a week. The eLearning Support Center includes a toll-free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service: <https://ets.utdallas.edu/elearning/helpdesk>.

### Communication

This course utilizes online tools for interaction and communication. Some external communication tools such as regular email and a web conferencing tool may also be used during the semester. For more details, please visit the Student eLearning Tutorials webpage for video demonstrations on eLearning tools: <https://ets.utdallas.edu/elearning/students/current/tutorials>.

Student emails and discussion board messages will be answered within 3 working days under normal circumstances.

### Distance Learning Student Resources

Online students have access to resources including the McDermott Library, Academic Advising, The Office of Student AccessAbility, and many others. Please see the eLearning Current Students webpage for more information: <https://ets.utdallas.edu/elearning/students/current>.

### Server Unavailability or Other Technical Difficulties

The University is committed to providing a reliable learning management system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty

which prevents students from completing a time sensitive assessment activity, the instructor will provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and also contact the online eLearning Help Desk. The instructor and the eLearning Help Desk will work with the student to resolve any issues at the earliest possible time: <https://ets.utdallas.edu/elearning/helpdesk>.

### **Comet Creed**

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

“As a Comet, I pledge honesty, integrity, and service in all that I do.”

### **Academic Support Resources**

The information contained in the following link lists the University’s academic support resources for all students.

Please go to Academic Support Resources webpage for these policies: <https://provost.utdallas.edu/syllabus-policies/#academic-support-resources>

### **UT Dallas Syllabus Policies and Procedures**

The information contained in the following link constitutes the University’s policies and procedures segment of the course syllabus.

Please go to UT Dallas Syllabus Policies webpage for these policies: <https://go.utdallas.edu/syllabus-policies>.

**The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.**