

# PPPE 6V81 Political Economy of Technology in East Asia

Fall 2025: Thursday 4:00pm - 6:45pm FN 2.304

**Instructor:**

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**Office Hours:**

Tuesdays, Wednesday, and Thursdays, 10 am - 12 noon, by appointment.

**Overview:** This course introduces the political economy of technological advances in East Asia with a focus on Taiwan and China. The former is the home of high technology industries including semiconductor and artificial intelligence. The island state plays a pivotal role in the global high-tech arena in particular regard to its leadership in high-end chips or staple for fast development of artificial intelligence (hardware). China is the direct competitor with US in latest technologies in artificial intelligence, particularly in research and developments for AI models and platforms (software). This course focuses on the public policies related to the fast technological developments and impacts on other policy areas such as foreign policy, trade, national security and economic relations in the region of East Asia. Students will be exposed to the various policy areas pertaining to technology given the fast development of artificial intelligence and cyber-related issues. By examining different policy domains influenced by advancements in AI and cybersecurity, students will gain a holistic view of the technological forces propelling East Asia onto the global stage. This course is designed not just to impart knowledge but also to build a critical understanding of the strategic intersection between technology and policy in an increasingly interconnected world. Latest developments involving key players such as the United States and other nations in the region will also be included in class lectures and discussions.

## Objectives:

- Understand the Interplay between Technology and Policy in East Asia
- Evaluate the Role of East Asia in the Global Technology Landscape
- Apply Political Economy Theories to Technological Developments

## Questions to be addressed:

- How do technological advancements, particularly in semiconductors and artificial intelligence, influence public policy and governance in East Asia?
- What are the strategic roles of these technologies in shaping domestic and international policies, including trade, cybersecurity, and foreign relations?
- What is the geopolitical significance of East Asian countries, especially Taiwan and China, in the global technology supply chain?
- What are the implications of these countries' technological capabilities on international power dynamics?
- How about the competition and cooperation between major global players like the United States and China?
- How about the political economy frameworks to understand the impact of technology on economic growth, social change, and policy-making in East Asia?
- How to predict future trends in the region's technological and economic landscape, considering both regional and global contexts?

This course is designed to be a reading and research seminar. Participation and punctual attendance are required. Members of the class need to come prepared for discussions instead of attending lectures. Evaluations will be based on individual research projects. At the end of the semester, each member is expected to conduct original, independent research on technology and policy in East Asia and complete a project focused on a pertinent topic.

## Reading list:

Aghion, Philippe, Céline Antonin, and Simon Bunel. 2021. *The Power of Creative Destruction: Economic Upheaval and the Wealth of Nations*. Cambridge, MA: Harvard University Press. <https://doi.org/10.4159/9780674258686>.  
Ben-Ishai, Guy, Jeff Dean, James Manyika, Ruth Porat, Hal Varian, and Kent Walker. 2024. "AI and the opportunity for shared prosperity: Lessons from the history of technology and the economy." *arXiv preprint arXiv:2401.09718*.

Bateman, Jon. 2022. "US-China technological “decoupling”: A strategy and policy framework."

(<https://carnegieendowment.org/research/2022/04/us-china-technological-decoupling-a-strategy-and-policy-framework?lang=en>)

Ding, Jeffrey, and Allan Dafoe. 2020. “The Logic of Strategic Assets: From Oil to Artificial Intelligence.” *arXiv preprint*. <https://arxiv.org/abs/2001.03246>(Published in *Security Studies* 30, no. 2 (2021): 182-212)

Feigenbaum, Evan A. 2020. *Assuring Taiwan’s Innovation Future*. Washington, DC: Carnegie Endowment for International Peace. <https://carnegieendowment.org/2020/01/27/assuring-taiwan-s-innovation-future-pub-80950>.

He, Tian. 2021. *The Political Economy of Developmental States in East Asia: South Korea, Singapore and Taiwan*. Cham: Springer International Publishing. <https://doi.org/10.1007/978-3-030-59357-5>

Jing, B. J. 2019. "Cybersecurity as a Sine Qua Non of Digital Economy: Turning Taiwan into a Reliable Digital Nation?." *DISINFORMATION, CYBERSECURITY, & ENERGY CHALLENGES* .

Kempf, Tristan. 2021. "Taiwan: An Electronics Powerhouse and Industrial Giant." PhD diss., FH JOANNEUM.

Lee, Kai Fu. 2018. *AI Superpowers: China, Silicon Valley, and the New World Order*. Boston: Houghton Mifflin Harcourt.

Solingen, Etel, ed. 2021. *Geopolitics, Supply Chains, and International Relations in East Asia*. New York: Cambridge University Press.

Tyfield, David, Rebecca Lave, Samuel Randalls, and Charles Thorpe, eds. 2017. *The Routledge Handbook of the Political Economy of Science*. London: Routledge.

Wan, Ming. 2020. *The Political Economy of East Asia: Struggles for Wealth and Power*. 3rd ed. Washington, DC: CQ Press.

Weiss, Linda. *America Inc.?: innovation and enterprise in the national security state*. Cornell University Press, 2014.

Zhu, Zhiqun. 2020. “Three Levels of US–China Strategic Rivalry.” *Brown Journal of World Affairs* 27(1): 119–138.

Zhang, Kevin Honglin. "Goeconomics of US-China tech rivalry and industrial policy." *Asia and the Global Economy* 4, no. 2 (2024): 100098.

Bode, Ingvild, Cecilia Ducci, and Pak K. Lee. "Narrating and Practising the US–China “Tech War”." *Global Studies Quarterly* 5, no. 2 (2025): ksaf037.

## Reports and Studies:

European Liberal Forum. 2021. *Decoding EU Digital Strategic Autonomy: Sectors, Issues and Partners. Techno-Politics, Volume 1 & 2*. Brussels: European Liberal Forum. (<https://liberalforum.eu/wp-content/uploads/2022/06/Decoding-EU-Digital-Strategic-Autonomy-ELF-Study-Techno-Politics-vol.1-2.pdf>)

Liaropoulos, Andrew N. "The Geopolitics of 5G and EU Digital Sovereignty." In *Hybrid Threats, Cyberterrorism and Cyberwarfare*, pp. 22-39. CRC Press, 2023.

Park, Seohee Ashley. 2021. "A Study on Technonationalism and the Semiconductor Industry in Northeast Asia: Case Studies of Japan, South Korea, and Taiwan." PhD diss., Tohoku University.

He, Tian. 2021. *The Political Economy of Developmental States in East Asia: South Korea, Singapore and Taiwan*. 1st ed. 2021. Cham: Springer International Publishing. <https://doi.org/10.1007/978-3-030-59357-5>.

Tung, Chen-Yuan. 2023. "Taiwan and the global semiconductor supply chain." *China-Taipei Representative Office in Singapore, Monthly Report, dez.* (<https://www.roc-taiwan.org/uploads/sites/86/2025/03/Taiwan-and-the-Global-Semiconductor-Supply-Chain-Monthly-Report-Feb-bMar20251.pdf>)

Segal, Adam, Valeriy Akimenko, Keir Giles, Daniel A. Pinkston, James A. Lewis, Benjamin Bartlett, and E. Noor. "The future of cybersecurity across the Asia-Pacific." *Asia Policy* 15, no. 2 (2020): 57-114.

(‡) Available electronically at McDermott Library

(†) Older version available electronically at McDermott Library

## On-line resources:

Project 49 Institute and US Taiwan Business Council

[U.S., Taiwan, and Semiconductors: A Critical Supply Chain Partnership](#)

Feigenbaum, Evan A., and Michael R. Nelson. 2022. *Taiwan's Opportunities in Emerging Industry Supply Chains*. Carnegie Endowment for International Peace.

CIA World Factbook

<https://www.cia.gov/library/publications/the-world-factbook/>

The National Bureau of Asian Research  
<http://nbr.org/>

OECD Country Reports  
<http://www.oecd.org/china/>  
<https://www.oecd.org/en/countries/japan.html>  
<https://www.oecd.org/en/countries/korea.html>

**Participation:** Full attendance of all classes is required and imperative. Attendance however is not enough. All class members are expected to actively participate in class preparation and discussions. Participation entails full preparation prior to class including research of class materials, completion of assigned readings and full involvement in class discussion. Only medical emergency (with documentation) is considered excused absence. If you have a special medical condition, please contact me in first week of semester and special arrangements can be made. In other absence cases, students will be allowed to make up with a three-page book review (double space). Approval of title to be reviewed is required. Participation is responsible for 20% of the final grade.

### Grading and Requirements:

#### *Class presentations:*

There will be multiple reading and research presentations. Each student needs to perform two of the following content presentations:

1. Book Review (selected from recommended book list)
2. Policy Case Study
3. News report Commentary

Prior approval of presentation materials is required. Each presentation accounts for 10 percent of the final grade.

#### *Project:*

The final paper must be between 20-25 pages in length. Originality is the first quality I demand. Please read carefully the University's policy about cheating and plagiarism (see below for a brief version). Due date is listed on the schedule below. No late submission will be accepted. A proposal can be in line with class presentations and each student has to consult with the instructor on substantive topic for approval. Details and sample topics will be discussed in class. The final project is responsible for 50 percent of the final grade.

Participation	10%
Class presentations	20%
Project Proposal	20%
Final project presentation:	20%
Final project	30%

### Document guideline:

All documents in this class must adhere to the following general guidelines:

- Submit electronic document to instructors via email in PDF format (NO Word or GoogleDoc):
  - With author name and content on file name:
    - E.g. smith\_proposal.pdf, doe\_proposal.pdf
  - on US letter size paper
  - double-spaced, one inch on all margins
  - 12-point font
- NO submission using link to cloud or online drive (e.g. Google drive, box.com)
- Following the APSA style and format is **mandatory** (see APSA style manual (2018 edition):  
<https://connect.apsanet.org/stylemanual>)

Week	Topic	Note	Due
1	Introduction		

2	Political Economy of East Asia		
3	Introduction to the Political Economy of Technology	Census day	
4	Taiwan's Semiconductor Industry and Global Leadership		
5	AI and Strategic Technologies in East Asia		
6	Public Policy and Technological Development		Proposal and presentation 10/2
7	Cybersecurity and Information Warfare		
8	Techno-Geopolitics and Regional Order		
9	Trade and Economic Relations in the High-Tech Sector		
10	Strategic Alliances and Technological Collaboration		
11	Intellectual Property and Technology Transfer		
12	US-China Tech Rivalry and Taiwan's Strategic Role		
13	Tech Ethics, Inclusion, and Global Justice		
14		Fall break	
15	Final Presentations		Final project 12/4

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### 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."*

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### Academic Support Resources

The information contained in the following link lists the University's academic support resources for all students. Please see <http://go.utdallas.edu/academic-support-resources>.

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### Policy on using Generative AI (e.g. ChatGPT, Gemini, Copilot)

There is no prohibition for using generative AI programs (ChatGPT, etc.) in this course. These programs can be powerful tools for learning and other productive pursuits, including completing some assignments in less time, helping you generate new ideas, or serving as a personalized learning tool. Because AI generated content is *not* necessarily accurate or appropriate, it is each student's responsibility to assess the validity and applicability of any generative AI output that is submitted. You may not earn full credit if inaccurate, invalid, or inappropriate information is found in your work. MOST IMPORTANTLY, your ethical responsibilities as a student remain the same. You must follow [UTD academic integrity policy](#). Please read carefully the sections on cheating, fabrication and plagiarism.

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### 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 review the catalog sections regarding the [credit/no credit](#) or [pass/fail](#) grading option and withdrawal from class.

Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

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