

# INTA 3044: Global Politics of Technology

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## Course Description:

The development and adoption of technological innovations are greatly influenced by the rules and regulations affecting their use. This course examines the economic and political dynamics that influence how regulations governing technology are adopted around the world. We focus on a broad range of technical areas -- including civil aviation; food safety; the Internet; and nuclear energy -- to explore how regulatory decisions are made and explain why different governments adopt different rules. These differences are illustrated by comparing the regulatory processes of the world's two largest markets and most influential regulators: the United States and the European Union. We also explore how their regulatory choices influence the rest of the world through emulation, coercion, and cooperation.

## Learning Outcomes:

By the end of this course, students will be able to:

- *demonstrate the ability to describe the social, political, and economic forces that influence social behavior;*
- *demonstrate the ability to describe the social, political, and economic forces that influence the global system;*
- *understand causal and determinant relationships between science and technology (S&T) and international affairs (Science, Technology and International Affairs); and*
- *interpret, analyze and explain developments in global technology governance.*

## Required Texts:

Fischhoff, B. and Kadvan, J. (2011), *Risk: A Very Short Introduction*, Oxford University Press.

Vogel, D. (2012), *The Politics of Precaution: Regulating Health, Safety and Environmental Risks in Europe and the United States*, Princeton University Press.

Additional readings will be added to t-square.

## List of Graded Assignments:

Assignment	Date due	Share of total
Regulatory failure case presentation	1/20	10
WTO dispute case presentation	2/10	10
Mid-term	2/17	20
Issue case study	Relevant class	15
Issue case presentation		5
Draft regulation	4/9	10
National regulation (group)	4/13 by email to all	10
Contribution to the negotiation (group)	4/16 & 4/22	10
Class participation	continuous	10

**Late assignments will NOT be accepted**, except for medical or personal emergencies upon verification.

## Extra-credit assignments (50 points for a good faith effort)

Submit a reflective summary (500 words max) of an eligible event within a week of the event.

An edited version of the best summary will be used as the official summary.

**Grades**

Grade	Points	Descriptors
A	20 19 18	Exceptionally good performance demonstrating a superior understanding of the subject matter, a foundation of extensive knowledge, and a skillful use of concepts and/or materials.
B	17 16 15	Good performance demonstrating capacity to use the appropriate concepts, a good understanding of the subject matter, and an ability to handle the problems and materials encountered in the subject.
C	14 13 12	Adequate performance demonstrating an adequate understanding of the subject matter, an ability to handle relatively simple problems.
D	11 10 9	Minimally acceptable performance demonstrating at least partial familiarity with the subject matter and some capacity to deal with relatively simple problems, but also demonstrating deficiencies serious enough to make it inadvisable to proceed further in the field without additional work.
F	<8	Did not demonstrate familiarity with the subject matter, nor the capacity to deal with simple problems in a manner recognizable to the consensus of mainstream academic practitioners within the field.

**Grade Change Policy**

Simple computational or clerical errors should be brought to my attention immediately. Legitimate requests for grade changes are welcome and encouraged. You should, however, resist the temptation to file a frivolous request just hoping to “get lucky”. Approach a grade change request as if arguing a legal case: you should have strong and convincing arguments and evidence to support your request. Be aware that appeals to the practices of other professors generally do not constitute good argument or evidence. Note also that grade changes requests can result in re-grades both up or down (or left unchanged). That is, if the greater scrutiny demanded by a grade change request reveals your assignment to deserve a lower grade than previously awarded, then the lower grade may be assigned.

**Attendance Policy**

Attendance is mandatory as is reading before class.

**ADAPTS**

The professor will work with ADAPTS so that all students have an equal opportunity for success. For information on ADAPTS, see <http://www.adapts.gatech.edu/>

**Honor Code Statement:**

*Plagiarizing is defined by Webster's as “to steal and pass off (the ideas or words of another) as one's own: use (another's production) without crediting the source.”*

If caught plagiarizing, you will be dealt with according to the GT Academic Honor Code.

For more information see: <http://www.honor.gatech.edu/plugins/content/index.php?id=9>

**Course overview**

1/6	Introduction	
1/8	Risk, market failures and regulation	
1/13	Analyzing risk	
1/15	Managing risk	Regulatory failure case selection
1/20	Regulatory failures I: False negatives	Regulatory failure case study
1/22	Regulatory failures II: False positives	
1/27	The politics of regulation	
1/29	American approaches to risk regulation	
2/3	European approaches to risk regulation	
2/5	Regulatory diffusion	WTO case selection
2/10	Regulatory conflict: WTO disputes	WTO case study
2/12	Regulatory diplomacy	
2/17	Mid-term	
2/19	Guidance on the issue case studies and selection	
2/24	No class - meetings with instructor	
2/26	Food Safety	
3/3	Agricultural biotechnology	
3/5	No class	
3/10	Pharmaceuticals	
3/12	Aviation	
3/17	Spring Break	
3/19	Spring Break	
3/24	National regulation and negotiation guidance	
3/26	Automobiles	
3/31	Nuclear power	
4/2	The internet and privacy	
4/7	No class - individual meetings with instructor	
4/9	National regulation	Draft regulation
4/14	Preparation for negotiation	National regulation (4/13 by email)
4/16	International negotiation I	
4/21	International negotiation II	
4/23	Reflection and review	

Red denotes assignment for grade

Green denotes required, but not assessed, actions

## Detailed course description

### 1/6 Introduction

This class will explore what participants know and think about technology, risk and regulation. It will also provide a substantive and administrative overview of the course.

### 1/8 Risk, market failures and regulation

This class will introduce what regulation is and identify the reasons why regulations are adopted. It introduces the concept of 'market failures'; identifies economic and social regulations; and presents the different forms regulations may take.

#### Reading

*Risk* – Chs 1 & 2

Bryson, B (2006), *The Life and Times of the Thunderbolt Kid*, Doubleday, selections (t)

Kleiman, M. A. R. and Teles, S. M. (2006), 'Market and Non-Market Failures,' in Moran and Goodin (eds), *The Oxford Handbook of Public Policy*, Oxford University Press, 627-32. (t)

### 1/13 Analyzing risk

Once risks are identified it is necessary to establish how great they are – the hazard and the probability of hazard – and what causes them. This class introduces how risks are analyzed.

#### Reading

*Risk* –Ch 3

Charnley. G. and Rogers, M. D. (2011), 'Frameworks for Risk Assessment, Uncertainty and Precaution,' in J. B. Wiener et al (eds), *The Reality of Precaution: Comparing Risk Regulation in the United States and Europe*, RFF Press, pp. 361-3. (t)

### 1/15 Managing risk

While the analysis of risk is a largely scientific endeavor, deciding what risks are acceptable or preferable and how they should be weighed against other considerations are more political decisions. This class introduces these considerations and two, somewhat caricatured, approaches to managing risk: 'sound science' and the 'precautionary principle'.

#### Regulatory failure case selection

#### Reading

*Risk* – Chs 4 & 5

Charnley. G. and Rogers, M. D. (2011), 'Frameworks for Risk Assessment, Uncertainty and Precaution,' in J. B. Wiener et al (eds), *The Reality of Precaution: Comparing Risk Regulation in the United States and Europe*, RFF Press, pp. 364-5. (t)

### 1/20 Regulatory failures I: False negatives

Because regulatory decision making takes place under uncertainty and involves political tradeoffs, sometimes technologies that should be regulated are not ('false negatives'). This class examines some examples of such regulatory failures.

#### Regulatory failure case study

Lead in petrol	EEA 2013: Ch.3	Asbestos	EEA 2001: Ch. 5
DDT (pesticide)	EEA 2013: Ch. 11	PCBs (chemicals)	EEA 2001: Ch. 6
Chernobyl/Fukushima (nuclear power)	EEA 2013: Ch. 18	Halo carbons (ozone layer) BSE (Mad Cow disease)	EEA 2001: Ch. 7 EEA 2001: Ch. 15

EEA (2001), *Late Lessons from Early Warnings: The Precautionary Principle 1896–2000*, Environmental issue report No 22, European Environmental Agency (t)  
 EEA (2013), *Late Lessons from Early Warnings: Science, Precaution, Innovation*, EEA Report 1/2013, European Environmental Agency (t)

### 1/22 **Regulatory failures II: False positives**

Sometimes regulatory decisions err on the side of excessive caution, which means that safe, valuable activities are precluded. Such ‘false positive’ regulatory failures are less visible than ‘false negatives,’ but can have significant negative consequences. This class examines false positives in order to underline the challenges of managing risk.

#### Reading

EEA (2013), *Late Lessons from Early Warnings: Science, Precaution, Innovation*, EEA Report 1/2013, European Environmental Agency, Ch. 2 (t)

### 1/27 **The politics of regulation**

Because regulatory decisions restrict or prohibit some products or activities and sometimes encourage others, they have economic consequences for businesses. Citizens also perceive risks and may demand action creating political pressure for regulation. Regulations, therefore, are not always (or only) adopted for functional reasons. This class introduces the political pressures that bear on regulatory decision making.

#### Reading

*Risk* – 7

*Politics* – 2

Majone, G. (2011), ‘Political Institutions and the Principle of Precaution,’ in J.B. Wiener et al (eds), *The Reality of Precaution: Comparing Risk Regulation in the United States and Europe* RFF Press, pp. 411-20. (t)

Wexler, M. N. (2011), ‘Which Fox in What Henhouse and When? Conjecture on Regulatory Capture,’ *Business and Society Review*, 116/3, 277-302. (I)

Michaels, D. (2005), ‘DOUBT Is Their Product,’ *Scientific American*, 292/6. (t)

### 1/29 **American approaches to risk regulation**

The United States has a highly developed regulatory system that has evolved significantly over time. This class introduces the U.S. regulatory system.

#### Reading

*Politics* – pp. 217-37; pp. 252-65

Charnley, G. and Rogers, M. D. (2011), ‘Frameworks for Risk Assessment, Uncertainty and Precaution,’ in J. B. Wiener et al (eds), *The Reality of Precaution: Comparing Risk Regulation in the United States and Europe*, RFF Press, pp. 368-71. (t)

Judis, J. B. (2010), ‘The Quite Revolution: Obama Has Reinvented the State in More Ways than You Can Imagine,’ *New Republic*, February 1. (t)

Sunstein, C. R. (2013), ‘Regulatory Moneyball: What Washington Can Learn from Sports Geeks,’ *Foreign Affairs*, May/June, 9-13. (I)

### 2/3 **European approaches to risk regulation**

Since the late 1980s the European Union has emerged as the other influential regulator alongside the U.S., but it makes regulatory decisions in a very different way. This class

introduces how the EU adopts risk regulations.

### Reading

*Politics* – pp. 237-50; pp. 266-78

Charnley, G. and Rogers, M. D. (2011), 'Frameworks for Risk Assessment, Uncertainty and Precaution,' in J. B. Wiener et al (eds), *The Reality of Precaution: Comparing Risk Regulation in the United States and Europe*, RFF Press, pp. 365-8; 371-2. (t)

"Lobbying Bonanza as Firms Try to Influence European Union," *New York Times*, October 18 2014. (t)

## 2/5 **Regulatory diffusion**

Differences in how regulatory decisions are made can contribute to different rules. Such differences can be a source of tension or of inspiration. This class introduces how different regulations interact and under what circumstances diffusion or conflict is more likely.

### WTO dispute case selection

### Reading

*Politics* – pp. 12-16; Ch. 9

## 2/10 **Regulatory conflict: WTO disputes**

Since the creation of the World Trade Organization in 1995 multilateral trade rules have imposed significant disciplines on national regulatory processes. The WTO also introduced a binding system for resolving disputes among members. As a consequence, governments sometimes seek to resolve regulatory differences through litigation before the WTO. This class examines the most prominent WTO disputes involving regulatory differences.

### Reading

Esserman, S. and Howse, R. (2003), 'The WTO on Trial' *Foreign Affairs*, Jan./Feb., 130-40 (I)  
"WTO disciplines on national regulation" (t)

### WTO dispute case studies

Reformulated gasoline	Asbestos
Hormone treated meat	Genetically modified organisms
Shrimp - Turtle	Tuna-Dolphin II

## 2/12 **Regulatory diplomacy**

For a variety of reasons, rather than challenging each other's regulations states often choose to try to resolve or at least mitigate the adverse effects of the differences through diplomacy. This class introduces the different approaches to managing regulatory differences and the domestic and international politics associated with them. It does so with particular reference to the on-going Transatlantic Trade and Investment Partnership negotiations between the EU and U.S.

### Reading

Nicolaidis (2000): 573-80. (t)

Young and Peterson (2014), *Parochial Global Europe: 21<sup>st</sup> Century Trade Politics*, Oxford University Press: 157-63; 167-76 (t)

## 2/17 **Mid-term**

## **International regulatory issues**

The course will examine the global politics of the regulation in depth in seven issue areas. The issue areas are selected for their real-world importance and because they illustrate key features of the global politics of technology discussed during the first portion of the course. All students must do the required reading for each class, but each class will be informed by a student presentation on a case study of a specific relevant regulation or regulatory interaction to be selected in consultation with the instructor.

**2/19**    **Guidance on the issue case study**

**2/24**    **No class** – meetings with instructor

**2/26**    **Food safety**

*Politics* – pp. 43-73; 91-102.

Young and Peterson (2014): ), *Parochial Global Europe: 21<sup>st</sup> Century Trade Politics*, Oxford University Press: 164-7 (t)

**3/3**      **Agricultural biotechnology**

Harmon, A., 'On Hawaii, a Lonely Quest for Fact: Debate on Genetically Modified Crops Entangles a Novice Politician,' *New York Times*, January 5, 2014, A1, A18-19. (t)

Alberts, B. et al (2013), 'Standing Up for GMO Science,' *Science*, 341, 20 September, p. 1320 (t)  
*Politics* – pp. 73-91

**3/5**      **No class**

**3/10**    **Pharmaceuticals**

Goldacre, B. (2008), *Bad Science*, 4<sup>th</sup> Estate, p. 203 (t)

*Politics* – pp. 189-202

Miller, F. H. (2011), 'Medical Errors, New Drug Approval, and Patient Safety,' in J. B. Wiener et al (eds), *The Reality of Precaution: Comparing Risk Regulation in the United States and Europe*, RFF Press, pp. 257-67. (t)

Lis, Y. et al (2011), 'A Comparison of US Food and Drug Administration and European Medicines Agency Regulations for Pharmaceutical Risk Management: Report of the International Society for Pharmacoeconomic and Outcomes Research Risk Management Working Group,' SPOR CONNECTIONS, Sept./Oct 2011, pp. 10-13 (t)

Cohen, J. and Kupferschmidt, K. (2014), 'Ebola Vaccine Trails Raise Ethical Issues,' *Science*, 17 October, pp. 289-90. (t)

**3/12**    **Aviation**

Downer, J. (2010), 'Trust and Technology: The Social Foundation of Aviation Regulation,' *The British Journal of Sociology*, 61/1, pp. 83-106. (I)

EASA (2011), 'Information Note Agreement between the United States of America and the European Union on cooperation in the regulation of civil Aviation Safety' (t)

"Making an ICAO Standard" <http://legacy.icao.int/icao/en/anb/mais/index.html>

**3/17**    **Spring Break**

**3/19**    **Spring Break**

**3/24 National regulation and negotiation guidance**

This class will discuss what is expected in terms of agreeing 'national' regulations and participating in the negotiations. It will also introduce some tips and tactics for negotiations.

Reading

Conflict Research Consortium's summary of Roger Fisher and William Ury, *Getting to Yes: Negotiating Agreement Without Giving In*, (New York: Penguin Books, 1983). Available at: <http://www.colorado.edu/conflict/peace/example/fish7513.htm> (w)

**3/26 Automobiles**

*Politics* – pp. 105-20

UN/ECE World Forum for Harmonization of Vehicle Regulations (WP.29) *How It Works How to Join It*. 3<sup>rd</sup> edition, 2012, pp. 1-28. Available at:

[http://www.unece.org/fileadmin/DAM/trans/main/wp29/wp29wgs/wp29gen/wp29pub/WP29\\_Blue\\_Book\\_2012\\_ENG.pdf](http://www.unece.org/fileadmin/DAM/trans/main/wp29/wp29wgs/wp29gen/wp29pub/WP29_Blue_Book_2012_ENG.pdf)

Stout, H., Ivory, D. and Ruiz, R. R. (2014), 'Regulator Slow to Respond to Deadly Vehicle Defects,' *New York Times*, 14 Sept. (t)

Ditlow, C. and Nader, R. (2014), 'Weak Oversight, Deadly Cars,' *New York Times*, 28 Oct. (t)

Bainwol, M. (2014), 'Making Cars Safer: A View from the Industry,' *New York Times*, 6 Nov. (t)  
'Fuel's Paradise,' *Economist*, 13 Dec. 2014 (t)

**3/31 Nuclear Power**

Ahearne, J. F. and Birkofer, A. (2011), 'Nuclear Power,' in B. Wiener et al (eds), *The Reality of Precaution: Comparing Risk Regulation in the United States and Europe*, RFF Press, pp. 121-39 (t)

**4/2 The Internet and privacy**

Drezner, D. (2007), *All Politics is Global: Explaining International Regulatory Regimes*, Princeton University Press, pp. 91-118. (t)

Schwartz, P. M. (2013), 'The EU-U.S. Privacy Collision: A Turn to Institutions and Procedures,' *Harvard Law Review*, 126, 1971-9. Available at:

[http://www.harvardlawreview.org/media/pdf/vol126\\_schwartz.pdf](http://www.harvardlawreview.org/media/pdf/vol126_schwartz.pdf) (w)

European Commission (2014), 'Factsheet on the "Right to be Forgotten" Ruling' (C-131/12). (t)  
'The Right to Be Forgotten: Drawing the Line,' *Economist*, 4 October 2014. (w)

President's Review Group on Intelligence and Communications Technologies, 'Liberty and Security in a Changing World,' 12 December 2013, Preface (pp.10-13) and Executive Summary (pp. 14-23). Available at:

[http://www.whitehouse.gov/sites/default/files/docs/2013-12-12\\_rg\\_final\\_report.pdf](http://www.whitehouse.gov/sites/default/files/docs/2013-12-12_rg_final_report.pdf) (w)

**4/7 No Class** – individual meetings with instructor

**4/9 National regulation**

During the class the instructor will meet with teams individually to discuss their progress and suggest ways forward.

**Draft regulation due**



**4/14 Preparation for negotiation**

During this class teams will meet separately to decide how to go about presenting their position in the negotiations. The instructor will be available for consultation as required.

National regulation due to all by email by 5 p.m. 4/13

**4/16 International negotiation I**

Start negotiations address regulatory differences.

**4/21 International negotiation II**

Conclude negotiations address regulatory differences (if necessary).

**4/23 Reflection and review**

This class will provide an opportunity to reflect on the process and outcome of the negotiations in the context of the course as a whole.