Science, Technology, and Regulation

Course prefix: PUBP

Course number: 4440

Section: RB

CRN (you may add up to five):
91098

Instructor First Name: Richard

Instructor Last Name: Barke

Semester: Fall

Academic year: 2025

Course description:

Regulation touches nearly every aspect of our professional and personal lives. It involves multiple stakeholders with conflicting objectives; competing justifications and approaches; conflicts about the roles of public judgments and scientific and technical expertise in the face of profound causal uncertainties; the balancing of costs/risks with benefits; and mixtures of many types of knowledge in pursuit of effective, equitable, and efficient solutions. Georgia Tech alumni of all majors are likely to interact with this arena as professionals in business, law, and government. Understanding *how regulatory decisions are made* is the primary goal of this course. Students in this course have a variety of substantive interests in regulation. Readings and discussions will include a range of regulatory issues, but students will be able to pursue their specific areas of interest with independent research and reports. Guest speakers from agencies and industry will discuss several areas of regulation.

Course learning outcomes:

After completing this course you should be able to:

- Understand how regulatory decisions are made, including executive, legislative, agency, and judicial roles
- Contextualize current regulatory issues in historical patterns and apply relevant precedents to current issues
- Appreciate the basic elements of administrative law and procedure

- Navigate the positions taken by stakeholders, experts, public, and government institutions in regulatory processes
- Relate cost-benefit and risk analysis to regulatory decision making while incorporating social, political, and ethical factors

Required course materials:

There is no textbook for this course. Assigned readings will be available on the web or through Canvas. The reading load varies (average ~ 40-50 pages/ class), so plan ahead.

Grading policy:

1. Students will write eight short (<1 page, s-s) **reports** about a regulatory topic or issue of their choosing (but requiring the professor's approval). This topic will be submitted for approval via email by 2pm on Aug. 29. Each report will correspond to a current syllabus topic (e.g., market failures, legislative actions, judicial review). Course materials need to be utilized and cited for full credit.

2. The **Perusall** device in Canvas allows you to annotate assigned readings with questions, comments, arguments, etc. You will comment on other students' comments. Five readings will be designated for Perusall comments.

3. Two brief quizzes will cover the assigned readings.

4. There will be a **final exam** or **paper** to be determined by mid-semester.

5. At the end of the course students will do brief presentations on the topics of their short reports

Policy reports (8 @ 12 pts each)   96 points

      Perusall readings (5 @ 7 pts each) 35 points

      Quizzes (2 @ 15 pts each)   30 points

      Final exam/paper (30 pts)   30 points

      Presentation (10 pts)   10 points

A: 90-100: Superior performance—you clearly demonstrate excellence: going beyond what is required by showing enthusiasm and creativity on the short reports, participation in class, generosity in responding to other students' Perusall postings, etc.

B: 80-89: Above-average, high-quality performance—basically, you satisfy the requirements as prescribed in the syllabus.

C: 70-79: Average performance. Competent and acceptable but not totally compliant with expectations and instructions for many of the assignments..

D: 60-69: Below-average performance. Demonstrated lack of ability or motivation to read and be able to discuss reading assignments, unfamiliarity with topics discussed in class, and a failure to follow instructions on course expectations.

F: 0-59: Unacceptable performance. Failure to meet minimum criteria.

Attendance policy:

Most employers in the U.S. allow workers two weeks or 10 days leave per year, or 4% so each student is allowed TWO unexcused absences. Excused absences (e.g., illness, family crises) require written documentation. Roll will be taken on random days. For each unexcused absence beyond two, the final course grade will drop by 5 percent. If you have advance knowledge of an absence (religious holidays, scheduled surgery, meteor impacts), let me know *before* the event.

Academic honesty/integrity statement:

The Academic Honor Code is a student initiative that became an official Institute policy in 1996. If you're unsure about what is allowed, what constitutes plagiarism, etc., ask! You can find the Honor Code (with a listing of responsibilities in Sections II.3 and II.4) at http://www.policylibrary.gatech.edu/student-affairs/academic-honor-code. CRUCIAL: if you're unsure about what is allowed, what constitutes plagiarism, etc., ask!

Core IMPACTS statement(s) (if applicable):

The Learning Outcomes satisfy the designated learning objectives for the Core IMPACTS Social Sciences area: "how political relationships develop, persist, and change," and an understanding of "the complexity of human behavior as a function of the commonality and diversity within groups."