

**Science, Technology, and Politics (ONLINE)
UGS 303 Signature Course (Spring 2021)**

M/W 12-12:50; F Discussion sections (one hour/section: 12-3)

Professor: Dr. Rachel Wellhausen

- Email: rwellhausen@utexas.edu
- Website: www.rwellhausen.com
- One-on-one office hours: W 10-11:30, by appointment¹
(here: <https://calendly.com/rwellhausen>)

TA: Nick Barraca

- Email: n.barracca@utexas.edu
- Drop-in group office hours: TBA²

Communication: We ask you to pay extra attention to how you communicate with the professor and the TA, so that we can run the course smoothly and both utilize our comparative advantages. Specifically: contact the TA (and not the professor) regarding course administration; the TA can loop the professor in as needed. When in doubt, contact us both in the same email.

Course meeting details:

- **Expected: Synchronous participation in Zoom lectures: M/W 12:00-12:50**
 - **All lectures will be recorded for asynchronous viewing, if from time-to-time you need to use that option.**
 - *Optional but encouraged!* Post-lecture group office hours "hangout" with the professor and/or TA (M/W 12:50-1:30, based on demand)
- **Required: Synchronous participation in assigned Zoom discussion sections**
 - F 12-12:50 UGS303(62175)
 - F 1-1:50 UGS303(62180)
 - F 2-2:50 UGS303(62185)

Course information:

¹ *Why should you make an appointment to come to the professor's office hours?* Please come if you'd like to have a one-on-one conversation, beyond the post-lecture group "hang outs." Whenever possible, the professor very much appreciates having conversations with you rather than engaging in typed exchanges. Especially given the circumstances, don't hesitate to sign up. Potential topics to discuss include: current events, STP in general, extensions of class content, research opportunities, careers, graduate school, etc.!

² *Why should you drop in to the TA's office hours?* Having a conversation in office hours is always worth your time, and it is nearly always better than engaging in a typed back-and-forth. The TA has a variety of experience and knowledge of their own, separate from the professor. Come learn from them! The TA may ask you to come to office hours in response to a written question.

Course Description: Most fights over contemporary science and technology are rooted in classic political problems of power, scarcity, and the distribution of resources. In this course, we will learn and apply foundational theories in political science to understand how government “understands” science and how scientific knowledge is incorporated (or not) into public policy. What are the limits of the government in making optimal decisions about science and technology?

The course proceeds as follows: we will first analyze how scientists interact with governments. Then, we will learn four key theories in social sciences that can help us understand problems in science and technology policy – the Coase theorem, collective action, tragedy of the commons, and the precautionary principle/harm minimization. Along the way, we will apply theories to a wide swath of issues in the US and abroad – such as pandemic response, climate change and environmental policy, space policy, and many more, especially issues inspired by student interest and current events. The course has no required texts; all readings and materials are available via Canvas. We reserve the right to change topics and readings based on our progress during the semester as well as student interest and current events. Please reference the course’s Canvas page for the latest updates.

Our learning priorities are as follows: Students will learn key social science theories that will serve them well in understanding social and political dynamics in any of their chosen fields; they will learn how to conduct positive (fact-based) analysis and separate them from normative (opinion-based) analysis; they will practice doing research when social phenomena comprise one’s data; and they will gain expertise in understanding and articulating the controversies around science and technology from an “outsider,” public policy point of view.

Signature Course Mission: The Signature Courses at the University of Texas at Austin will connect students with distinguished faculty members in unique learning environments. By way of this rigorous intellectual experience, students will develop college-level skills in research, writing, speaking, and discussion through an approach that is both interdisciplinary and contemporary.

Grade components:

Summary:

Assignments and discussion section	40%
Short writing	20%
Research project	40%

Details:

Assignments and discussion section (40%). Assignments are typically critical thinking-based assignments, in which you will apply course content, perform social science research, reflect on course materials, and so on. They will be completed via Canvas, whether through Canvas tools or file uploads. As you can see from Canvas, assignments increase in point value over the course of the semester. *Assignment content is focused on Signature Course essential elements: Critical Thinking, Information Literacy, and Writing.*

You are required to participate synchronously in your assigned discussion section, which comprises part of your assignments grade. **Here are some FAQs about discussion sections and participation:**

- What is the deadline for assignments due on Fridays, prior to discussion sections?
 - o **** F 12:00 noon = submission deadline for F due dates ****
 - **Your assignment is due by or before F 12:00 noon regardless of which section you are assigned to. This is only fair!**
- What if I can't attend my assigned discussion section on a given day?
 - o Sign into and participate in another discussion section (all hosted in the same Zoom room: 12-12:50, 1-1:50, 2-2:50). However, we prefer you to build community with one discussion section over the course of the semester; confer with the TA if you have an ongoing issue with attending your assigned session.
- What if I cannot attend any of the three synchronous discussion sections on a given day?
 - o Should a student be absent from a synchronous discussion section, the expectation is that the student will: (1) notify the TA (in advance if possible), (2) get information and notes about missed content from a colleague (**and not from the TA), and (3) send the TA a Canvas message with a 1-paragraph reflection on the missed content, due prior to the following week's discussion section.
 - o Failure to complete step (3) by deadline = confirmed absence = docked 1 letter grade on participation.
- What counts as participation in discussion section?
 - o Active will likely average out to 1-2 spoken comments to the group per section, as well as active participation in any group work/breakout sessions.
 - o Presence in discussion section is not equivalent to participation. (Challenge yourself to actively contribute; we will discuss strategies in class. Part of the Signature Course mission is to get you comfortable with oral contributions, hence the emphasis on spoken participation.)

Extra credit opportunities will be announced and available during the semester; all potential extra credit will be added to the **Assignments** portion of your grade. Because extra credit will be available, final grades will not be rounded "just a little bit more." Extra credit already provides you an opportunity to "round" your grade. Thus, no grade changes are available at the end of the semester, and students are advised not to ask for such special dispensation (see section on academic integrity).

Short writing (20%). You will complete a few short writing assignments in the course, typically 1-2 pages in length, which are more work-intensive (and thus worth more) than

Assignments. They will be completed via Canvas, whether through Canvas tools or file uploads. Short writing assignments will apply class content, give experience you in critiquing (not proofreading or “red-lining”) your colleagues’ work, and allow you to take advantage of several unique offerings at UT Austin. *Short writing content is focused on Signature Course essential elements: Campus Gems, University Lecture Series, Writing, Critical Thinking.*

Research project (40%). Throughout the semester, you will be working on your own research project in which you will apply social science theories from the course to an STP issue of your own choice. We will work on the project step-by-step so as to give you opportunities to develop your ideas and build to your final deliverables. A portion of this project will be individual, in the form of a solo-authored final research paper. A portion of this project will also be group-based, as you and colleagues will collaborate on a final creative, oral presentation bringing together your various expertise to create an analysis beyond each of your individual work. We will spend a considerable amount of time explaining expectations for this project in the course. *Research project content is focused on Signature Course essential elements: Information Literacy, Oral Communication, Writing, Critical Thinking.*

Grading policy:

Late policies:

- Assignments submitted from 2 minutes – 24 hours past the deadline will be docked one letter grade. The assignment will be docked another letter grade for each additional 24 hours.
- If your failure to submit the assignment on time results in you being unable to complete other graded content (such as actively participating in discussion), you will not receive any special treatment and will be graded to the same standards as your colleagues.
- We reserve the right to notify you that the late policy is suspended or changed for any specific assignment.

Grade scale: (final grades rounded to the nearest whole number)

94 and above	A
90-93	A-
87-89	B+
84-86	B
80-83	B-
77-79	C+
74-76	C
70-73	C-
67-69	D+
64-66	D
60-63	D-
59 and below	F

Academic integrity:

University of Texas Honor Code: “As A Student Of The University Of Texas At Austin, I Shall Abide By The Core Values Of The University And Uphold Academic Integrity.”

UT Statement on Academic Integrity: A fundamental principle for any educational institution, academic integrity is highly valued and seriously regarded at The University of Texas at Austin. More specifically, you and other students are expected to maintain absolute integrity and a high standard of individual honor in scholastic work undertaken at the University. This is a very basic expectation that is further reinforced by the University's Honor Code. At a minimum, you should complete any assignments, exams, and other scholastic endeavors with the utmost honesty, which requires you to: acknowledge the contributions of other sources to your scholastic efforts; complete your assignments independently unless expressly authorized to seek or obtain assistance in preparing them; follow instructions for assignments and exams, and observe the standards of your academic discipline; and avoid engaging in any form of academic dishonesty on behalf of yourself or another student.

Professor's notes on academic integrity: It is *always* inappropriate to ask for “extra” extra credit or charitable grade adjustments at the end of a course simply because you wish you had gotten a different grade. It is *always* inappropriate (and, frankly, stupid) to try to play TAs and professors off of each other; obviously, we talk to each other and grade as a team. Nothing good can come from engaging in these behaviors – most specifically, your reputation with your professors will suffer (and we talk to each other, too). Your grades are based on output, in the form of demonstrated knowledge, and not input – i.e., not on effort. We absolutely and always applaud you putting hard work and effort into the course. However, effort does not in itself determine your grade. *You are always welcome to ask us for study tips, but please do use the various sources throughout UT Austin early on to optimize turning your effort into the kind of grade you're aiming for. Truly, many specific experts in pedagogy, learning, and higher ed are employed by UT Austin to serve you – this is a perk of being here, of which you should take advantage.*

Course-specific plagiarism policy: In our course, all violations of university academic conduct guidelines, including plagiarism, will result in a zero on the assignment or exam in question and will be referred to the Dean of Students as appropriate. and Plagiarism is the use of others' ideas or work without credit and/or presenting derivative work as one's own. This includes, but is not limited to, cutting and pasting from someone else's work or an internet source, failing to identify exact quotes, failing to cite a source for information that is only available from that source, failing to cite a source for an idea or argument you borrowed from that source, and turning in work that is not your own. When in doubt, cite.

Health and Welfare:

Dealing with Extreme Circumstances: *Our bottom line is this: Please loop the professor and TA in if you are facing extreme circumstances that interfere with your ability to be successful in the course, as soon as is reasonably possible, and we will do whatever we can to help you be*

successful. Note that we have already built flexibility into the course – with padded deadlines, adjusted assignments, etc. – to give you the best possible baseline ability to meet the course requirements. In general, we ask for everyone's cooperation in adhering to the deadlines and requirements of this (large) course. Absent extreme circumstances that you have communicated to us in a timely way, you should not expect (or ask for) special treatment, especially at the end of the semester.

Student Emergency: Any student facing severe difficulties during the semester should take advantage of Student Emergency Services, which helps to coordinate between the student and the student's professors. (SES: deanofstudents.utexas.edu/emergency; 512-471-5017; 24/7 Behavior Concerns Advice Line [BCAL]: 512-232-5050) Once a student meets with SES, SES will contact the student's professors on the student's behalf. Thus, students do not need to provide explanations or doctor's notes, etc. to individual professors. Professors rely on SES as an intermediary, because we are not trained to provide students with appropriate services nor evaluate what services would be most useful. There are many staff members at SES – and throughout UT Austin – whose training and focus are exactly in these areas. Thus, students getting in touch with us directly about severe difficulties will be referred to SES. That said, you are welcome to lean on us when seeking motivation in contacting SES (whether in office hours or via email). We are happy to talk, to the extent our positions allow us; and we can also connect students to available services. However, note that SES involvement puts the professor under no obligation to provide special accommodations for a student. Thus, we will provide special accommodations for students using SES on a case-by-case basis.

Disability Accommodations: Students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities (SSD: ddce.utexas.edu/disability; 512-471-6259). Students registered with SSD are required to follow the SSD procedures, which include providing accommodation requirements to the professor (usually in a letter) and then meeting with the professor in office hours to discuss and commit to the approach that will be taken in the course. The professor asks that students registered with SSD be proactive: please raise issues with the professor immediately should we make a mistake in providing accommodations. Students are encouraged to register with SSD and notify the professor as soon as possible. The professor does not make SSD accommodations retroactively.

Title IX Reporting: UT Austin is committed to fostering a learning and working environment free from discrimination in all its forms. Faculty members and certain staff members (TAs) are considered "Responsible Employees" or "Mandatory Reporters," which means that they are required to report violations of Title IX to the Title IX Coordinator. For more information about reporting options and resources, visit titleix.utexas.edu or contact the Title IX Office at titleix@austin.utexas.edu.

Course Drop Policy: At the beginning of each semester, you can add and drop classes without penalty. Check the academic calendar for specific dates. Refer to the General Information Catalog for all official add/drop policies and procedures.

University-approved Function Conflicts: The student must inform the professor and TAs, with proper documentation, well before the deadline or scheduled exam time, so that the TAs can work on alternative arrangements.

Religious Holiday Conflicts: By UT Austin policy, the student must notify the professor of the pending absence at least fourteen days prior to the date of observance of a religious holy day. If the student must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, the student will be given an opportunity to complete the missed work within a reasonable time after the absence.

Course Schedule and Content

Expectations regarding readings and materials: Unless stated otherwise, our expectation is that you will:

- *Skim* all the readings in preparation for the first lecture of the module, and
 - o First lecture of the module = Monday, Week 1 of the module (as specified in the course outline below and on Canvas).
- *Read* all the readings in advance of the last lecture of the module.
 - o Last lecture of the module = Wednesday, Week 2 of the module (as specified in the course outline below and on Canvas).

These expectations require you to take personal responsibility for engaging with each module's materials in a timely manner. At times, the professor and/or TA will specify that you need to fully read one or more materials before a specific class session or to complete a specific assignment.³

**** Introduction: Our approach to STP**

- Introduction: Why study science, technology, and politics together?
- Readings and materials for this module: See Canvas

Week 1:

Jan 20 - Lecture

- * Assignment given: Assignment: Brainstorming STP topics and research focus
- * Assignment given: Short paper: University "Gem" short report
- * Assignment given: Short paper: University Lecture Series

³ ***Canvas goals/expectations:*** We will do our best to utilize the features on Canvas to make the administration of the course as smooth as possible and make all its components clear to you. We appreciate your help in keeping up with the course on your side, so that we can make the course run efficiently and maximize our ability to provide content rather than deal with administrative issues. That said, you will never be penalized for a technical glitch or issue – but it is incumbent on you to raise it to us in a timely manner. If you ever have an idea about how we could make something easier for you, please do not hesitate to tell us!

* Extra credit introduced: Ongoing extra credit discussion: COVID-19

Jan 22 - Discussion

* Assignment due: Assignment: Brainstorming STP topics and research focus

Week 2:

25 Jan - Lecture

27 Jan - Lecture

29 Jan - Discussion

* Assignment due: Short paper: University "Gem" short report

**** Module 1: How does science interface with government?**

- Module 1: Science-government interactions
- Readings/materials for the module: see Canvas

Week 1:

1 Feb - Lecture

* Assignment given: Discussion section: "Take Action Toolkit" from AAAS

* Assignment given: Assignment: Human Subjects training

3 Feb - Lecture

5 Feb - Discussion

* Assignment due: Discussion section: "Take Action Toolkit" from AAAS

Week 2:

8 Feb - Lecture

10 Feb - Lecture

12 Feb - Discussion

* Assignment due: Assignment: Human Subjects training

**** Module 2: Research**

- Module 2: How to do empirical social science research
- Readings/materials for the module: see Canvas

Week 1:

15 Feb - Lecture

* Assignment given: Assignment: Research Training and Strategies

* Assignment given: Assignment: Your 1 sentence research question

* Assignment given: Research project: Annotated bibliography

* Assignment given: Draft for peer review (in section)

* Assignment given: Video presentation outline (upload here)

* Assignment given: Video presentation (upload here)

* Assignment given: Research project: Final paper

17 Feb - Librarian session TBD

* Assignment due: Assignment: Research Training and Strategies

19 Feb - Discussion

* Assignment due: Assignment: Your 1 sentence research question

**** Module 3: (When) can property rights solve STP problems?**

- Module 3: Coase theorem and property rights
- Readings and materials for the module: See Canvas

Week 1:

22 Feb - Lecture

* Assignment given: Assignment: Coase study guide

* Assignment given: Assignment: Property rights and oil/gas policy

24 Feb - Lecture

26 Feb - Discussion

* Assignment due: Assignment: Coase study guide

Week 2:

1 Mar - Lecture

3 Mar - Lecture

5 Mar - Discussion

* Assignment due: Assignment: Property rights and oil/gas policy

**** Module 4: (How) can governments coordinate to solve STP problems?**

- Module 4: Collective Action
- Readings and materials for this module: see Canvas

Week 1:

8 Mar - Lecture

* Assignment given: Short paper: Your experience with collective action

10 Mar - Lecture

12 Mar - CANCELLED Discussion

**** Spring Break ****

Week 2:

22 Mar - Lecture

24 Mar - Lecture

26 Mar - Discussion

* Assignment due: Short paper: Your experience with collective action

* Assignment given: Assignment: Expanding on colleagues' CA papers

**** Module 5: (When) does failure to cooperate result in failure to solve STP problems?**

- Module 5: Tragedy of Commons
- Readings and materials: see Canvas

Week 1:

29 Mar - Lecture

31 Mar - Lecture

2 Apr - Discussion

* Assignment due: Assignment: Expanding on colleagues' CA papers

* Assignment given: Assignment: Space junk

Week 2:

5 Apr - Lecture

7 Apr - Lecture

9 Apr - Discussion

* Assignment due: Assignment: Space junk

**** Module 6: What motivates governments' approaches to STP problems?**

- Module 6: Precautionary principle/harm minimization
- Readings and materials: See Canvas

Week 1:

12 Apr - Lecture

14 Apr - Lecture

16 Apr - Discussion

* Assignment due: Research project: Annotated bibliography

Week 2:

19 Apr - Lecture

21 Apr - Lecture

23 Apr - Discussion

* Assignment due: Research project: Draft for peer review

**** Conclusions**

- Conclusions: Your analyses
- Readings/materials for the module: See Canvas

Week 1:

26 Apr - Lecture

* Assignment due: Short paper: University Lecture Series

28 Apr - Lecture

30 Apr - Discussion

* Assignment due: Video presentation outline (upload here)

* Assignment due: Video presentation (upload here)

Week 2:

3 May - Lecture

* Assignment due: Short paper: University Lecture Series

5 May - Lecture

* Assignment due: Research project: Final paper