

ANSC 3312: Science, Technology, and Society

MWF 10:00-10:50 am
HSC 101

Spring 2024

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HSC 140

I encourage you to come by my office, during office hours or by appointment, to discuss any questions or thoughts from the course you may have that were not addressed in class. I welcome comments about the course, as well.

COURSE DESCRIPTION (from the bulletin)

A study of the characteristics and growth of the modern sciences, their effects on society and culture, and the emergence of technological civilization. Topics such as the nature of scientific research and the application of sciences, big science vs. little science, the limits of scientific and technical knowledge, the political and economic power of science and technology, effects on individual and social ways of life, the rise of technicized industry and mass media, the relations between science, technology, and religion, and ethics in science and technology.

OBJECTIVES

By the end of the semester, students should have a strong foundation in the guiding theories that inform Science, Technology, and Society (STS) studies, as well as be familiar with contemporary STS issues.

TEXTS

There are two required textbooks for this course:

Harry Collins and Trevor Pinch: *The Golem at Large: What You Should Know About Technology* (GL on reading list)

Erica Duran and Lauren Mecucci Springer: *Science and Technology*, Bedford Spotlight Reader (S&T on reading list)

Other assigned readings will be made available on Brightspace.

COURSE REQUIREMENTS AND EVALUATION

This class will be taught through interactive lectures where each student is expected to actively participate in all discussions. To be most successful in this class, I expect you will read the assigned readings and have completed all assignments by their due date. The comments you contribute to class discussions should derive from class materials and other academic pursuits. For example, some readings might remind you of other books you have read in another class, and I urge you to link the readings for us in discussion. Personal experiences may be used as examples only when relevant and must be presented within the context of course materials.

Your grade for the course will be determined on the basis of the following assignments:

Reading Reflections (40%)

There are four reading reflections you will be required to submit, based on specific readings in the Collins and Pinch book (GL). More details will be provided.

Final Presentation (10%)

You will select and present an article that discusses a contemporary issue in STS. You will record your presentation. We will then have panel discussions during class time. More details will be provided.

Midterm Exam (20%)

Final Exam (20%)

Participation (10%)

Class attendance and active participation in classroom activities are very important to complete this course successfully. Students are required to attend all classes and participate in all discussions. See attendance policy below for more details.

GRADING POLICY

My goal is to have graded items returned to you with feedback within a week of you submitting your work (this may not always include the letter grade itself, if it is an assignment with multiple parts). Work submitted late may also be delayed in grading/feedback.

I make every attempt to approach grading in a fair and equitable manner. I am willing to review early drafts of work to provide you general feedback for a final draft, but note that I require at least a week before a deadline in order for me to have enough time to review and send you feedback and for you to have enough time to address any issues. I will not reconsider grades, unless I have clearly made a mistake in the summation of points. I am always happy to discuss with you ways in which you can improve your grade, with the assumption that the question is being asked to gain a deeper understanding of the material.

For all assignments, it is important you follow the guidelines for the assignment as listed above. In most cases, it is missing elements of the assignment that result in the most significant lowering of grades. A grading rubric will be included in the detailed guidelines for each assignment.

MAKE-UP AND LATE WORK POLICIES

Generally speaking, you should submit all your work by the assigned due date and time. Assignments are typically designed to help you think through the material in increments to really solidify your understanding by the end of the semester. Trying to cram everything in last minute defeats that purpose and leaves you with a superficial understanding of the course material by the end of the semester. As such, in-class assignments will not be accepted late. You may submit other work after the assigned due date and time with a point deduction penalty. Anything from 1-5 hours late will have one point deducted for each hour they are late. Anything more than 5 hours late up to one week late will have 5 points automatically deducted from their assignment grade. Anything more than one week late will have 10 points automatically deducted from their assignment grade. I will not accept any late submissions past the end of the scheduled final exam period. At the end of the final exam period, all missing assignments will be converted to a "0". There will be absolutely no exceptions to this policy.

ATTENDANCE

You are expected to attend and be prepared for every class period. The quality of in-class activities will depend on your presence in conjunction with your critical thinking and making cohesive and structured arguments. That said, I do understand that sometimes you may be unable to make it to class, or may not be fully prepared for class. You are still responsible for all material being covered for that class period. Excessive absences generally result in poorer course grades. Note that if your final course grade is within 0.5 points of a different letter grade I will only "round up" for students who have missed less than three class hours (e.g., a grade of 89.5/B+ would become a 90/A- only for students who are absent no more than two class periods). Missing more than three class hours also puts you at risk of being withdrawn from the class, per university policy (see academic policies link on Brightspace). Class time missed due to medical or family emergencies (note: minor illnesses are not medical emergencies) and/or college-sponsored student-athlete activities do not count toward the three class hour limit, as long as proper documentation is submitted within a week of the missed class time.

Consistent lateness will also have a detrimental effect on the student's final grade. **If you are more than ten minutes late you will be counted as absent.**

There will be absolutely no exceptions to this policy.

OTHER GUIDELINES

TECHNOLOGY POLICY

Current research suggests most notes taken on laptops and/or computers are done in such a way to foster poor learning through shallow processing of material.* On the other hand, laptops and similar devices can be an invaluable resource during some in-class discussions. As such, laptops and/or tablets are acceptable as long as they do not pose a distraction to you, your classmates, or me. In tangible terms, if I notice you smiling at your computer when class discussion has nothing to smile about, or you are typing vigorously at a time that does not warrant such typing, you are in danger of posing a distraction. If I notice a student eyeballing your computer, you are definitely posing a distraction. If you create a distraction, you will lose points toward your class participation score. Multiple violations will result in barring your tablet/laptop for the remainder of the semester. At the same time, if you are more interested in what your neighbor is doing on their computer, then you will also be at risk of losing points toward your class participation. Furthermore, all cell phones and any similar electronic devices must be powered off or placed on silent. They should be stored in a place out of eyesight (i.e., in your bag and NOT on your desk or leg). If you have a situation that requires you to have your phone available, you must speak with me before class begins.

*(e.g., Mueller and Oppenheimer, 2014: <https://doi.org/10.1177/0956797614524581>)

ACADEMIC HONESTY AND INTEGRITY

There is never an excuse for copying someone else's work, in whole or in part, and presenting it as if it were your own. While I encourage you to speak with others outside of class to discuss ideas, concepts, etc., all submitted work must be your own and in your own words, unless properly cited. This includes information garnered from other students, books, articles, newspapers, websites, etc. Poor citation practices will result in point deductions on written assignments. Egregious copying of anyone else's work without any citation will result in at minimum a "0" on an assignment and will be reported to the Dean of Constantin College. Multiple incidents will likely result in an "F" in the course. It is your responsibility to familiarize yourself with the University's academic honesty policies and the definition of plagiarism in the *University of Dallas General Bulletin* (or see academic policies link on Brightspace). Do not hesitate to speak with me if you have any questions about academic honesty.

STATEMENT ON STUDENT SUCCESS

My hope for you in taking this class is that you will gain a deeper appreciation of the course material and the ways in which science and technology affect health. More importantly, I am motivated to see you grow as a person and achieve overall success as a student over the course of the semester. Sometimes, though, there are factors that may pose an obstacle to your success. If such an obstacle is present and is something specific to the design of the course, please set up an appointment to meet with me in my office to discuss. If the obstacle is based on extraneous factors to the class, there are multiple resources at UD to help you navigate these factors and successfully complete the semester. If you are unsure what may be the best resource for you, please do not hesitate to speak with me, and we can talk through a suitable course of action.

UD Office for Academic Success: Most classes are designed differently for a variety of reasons. In some classes, your learned study skills and time management may already be sufficient. For other classes, particularly as you advance further in your studies, it may be helpful to develop new strategies for managing the requirements for the course, as well as other expectations of you. The Office for Academic Success may be able to provide you with some guidance. They are located in Braniff 116 (Dr. Matthew Spring). You can also find valuable resources online through their webpage: <https://udallas.edu/offices/academicsuccess/index.php>

UD Writing Lab: Often times, disciplines have different expectations for writing styles. This sometimes causes confusion for students who may be praised for their writing in one class and possibly strongly critiqued in another. If you are concerned your writing style does not adequately follow the criteria for evaluation as described for a written assignment, I encourage you to set up a tutoring session at the writing lab, where they can provide feedback on grammar, organization, argument, use of evidence, and the like. Appointments can be made by signing up on the writing lab schedule sheet outside of Braniff 304.

UD Counseling Center: Mental health issues can arise at any time during a semester. For some, an increase in academic workload at various points in the semester can be overwhelmingly stressful. For others, non-academic stressors (both intrapersonal and interpersonal) can distract students from their coursework. Regardless of the source, I strongly encourage you to meet with a UD counselor to work through any mental health concerns you may have, at any point in the semester. You can contact them via email: counseling@udallas.edu; phone number: 972-721-4045; or you can schedule a session directly at <http://udcc.clientsecure.me/> (contact the center to be put on the waiting list, if there are no openings).

Section 504 and American with Disabilities Act: The University will provide appropriate and reasonable accommodations to students with qualifying conditions to achieve academic accessibility commensurate with non-handicapped students. To be considered for academic accommodations in this course, please present a copy of your 504/AD letter and sign up for an Accommodations Planning meeting with me. Please note instructors are not allowed to provide classroom accommodations to a student until appropriate verification from the Coordinator of Disability Services has been provided. To apply for accommodations, you can do so online: udallas.edu/ada-request. For additional information, you may contact the Coordinator of Disability Services in Haggar 253, or 972-721-5056.

Statement on Title IX: If you believe that you have been a victim of sexual misconduct, harassment or violence (including sexual assault, stalking, dating or domestic violence), you have various options and resources available to you. Please come speak with me if something, or someone, is affecting your potential for success at the university. However, do know that faculty and staff are obligated to report relevant incidents to the campus Title IX Coordinator, the Director of Student Life, and/or the Director of Campus Safety. Students can make confidential reports to licensed professionals in the Counseling Center or the Student Health Clinic, to a member of the clergy or to the Director of Campus Ministry. Additional information related to the process for investigation of complaints is available from the Title IX Coordinator in Haggar 253, or 972-721-5056.

Changes in Syllabus

The syllabus may be subject to change. If this happens, an announcement will be made in class and on eCollege. It is the student's responsibility to keep up with any and all changes.

COURSE SCHEDULE

Date	Topic	Reading
1/17/2024	Class introduction	Syllabus overview
1/19/2024	What is STS?	S&T Introduction
Theoretical and historical approaches		
1/22/2024	Technological Determinism	Do Machines Make History (PDF)
1/24/2024	Social Construction	Social Construction of Facts and Artifacts (PDF)
1/26/2024	Objectivity and Truth	Coming Out as a Philosopher (PDF)
Environmental Science		
1/29/2024	Discussions on climate	S&T Sarah E. Myhre: Treading the fine line...
1/31/2024	Climate intervention	S&T Clive Hamilton: Why Geoengineering
2/2/2024	READING REFLECTION DUE	GL Ch 6: The Science of the Lambs
Surveillance and Privacy		
2/5/2024	Surveillance	S&T William Eyre: Surveillance Today
2/7/2024	Privacy	S&T Stuart Summer: Why all this fuss about privacy?
2/9/2024	Data usage	S&T Scott Lucas: Why Cambridge Analytica Matters
Science, Technology, and Military		
2/12/2024	History	Science Technology and the Military (PDF)
2/14/2024	Theoretical understanding of weaponry	Computers Guns and Roses (PDF)
2/16/2024	READING REFLECTION DUE	GL Ch1: A Clean Kill?

Societal Bias in Technology		
2/19/2024	Gendered technology	Manufacturing Gender in Commercial and Military Cockpit Design (PDF)
2/21/2024	Racialized technology	Catching our Breath (PDF)
2/23/2024	Technology and the poor	Popular Technology (PDF)
Economics of Science and Technology		
2/26/2024	Labor and Technology	T&S Natalie Kitroeff: Robots Could Replace...
2/28/2024	Concepts of Money	T&S Ole Bjerg: How is Bitcoin Money?
3/1/2024	READING REFLECTION DUE	GL Ch 5: Tidings of Comfort and Joy
Science Ethics		
3/4/2024	Addressing social issues	Nanotechnology and the developing world (PDF)
3/6/2024	Scientific Representation	In the Science Zone (PDF)
3/8/2024	MIDTERM	
3/11/2024	Spring Break	
3/13/2024	Spring Break	
3/15/2024	Spring Break	
Science, Technology, and Health		
3/18/2024	DNA Alteration	S&T Bryan Walsh: New Natural Selection
3/20/2024	Potential for cure	S&T Alice Park: The CRISPR Pioneers
3/22/2024	Technological morality	S&T Sheldon Krinsky: Creating Good
3/25/2024	READING REFLECTION DUE	GL Ch 7: ACTing UP
3/27/2024	No class	
3/29/2024	Easter break	
4/1/2024	Easter break	
4/3/2024	Organ growth	S&T Rohit Karnik and Robert S. Langer: Rebuilding Ourselves
4/5/2024	Cancer knowledge	S&T Martin Ford: The Healthcare Challenge
4/8/2024	Technology and aging	From intervention to co-constitution (PDF)
4/10/2024	Technology and mortality	S&T Hillary Rosner: All too human
4/12/2024	AI in medicine	Fair and equitable AI in biomedical research (PDF)
Internet use		
4/15/2024	Media and the new	S&T The Media Insight Project: How Americans Get Their News
4/17/2024	Social relationships	S&T Lori Ann Wagner: When Your Smartphone is Too Smart
4/19/2024	Community	S&T Ronald Brownstein: How Has Technology Changed...
4/22/2024	AI and information	S&T Brooke Borel: Can Artificial Intelligence Help...
4/24/2024	presentations	
4/26/2024	presentations	
4/29/2024	presentations	
5/1/2024	presentations	
FINAL		