

STS 403 / Science, Technology and Society

Fall Semester 2019
Wednesdays 3pm-5:45pm
Classroom: 213 Winston Hall
Course website: <https://wolfware.ncsu.edu/>

Instructor

Matthew Booker, Director, Science, Technology & Society
Associate Professor, Department of History
Telephone: 919-513-1431
Email: mmbooker@ncsu.edu
Office hours: TuTh 1-2pm in 277 Withers Hall

Course Prerequisites

STS 214 and junior or senior status in STS

Description

This course provides students with a framework for understanding the two-way relationships between technologies and the societies they emerge within. Social and cultural factors influence the emergence, adoption and evolution of technologies, while technologies impact society and culture in unanticipated ways. Understanding this dynamic is crucial to understanding and managing technologies. This course presents historical case studies, ethnographic accounts, and theoretical perspectives to introduce the conditions that constrain and enable technologies. This is the senior capstone seminar, and students will complete a major written product demonstrating their mastery of STS skills and concepts.

Required texts

You must purchase or have consistent access to a copy of Margaret Atwood, *Oryx & Crake*. All other required readings will be available online through the course web site (<https://wolfware.ncsu.edu>) See schedule below for details.

Attendance

Attendance is required. You may miss one class without any excuse needed. Each additional unexcused absence will deduct 3 percent from your final course grade. Excused absences follow the university policy. <https://policies.ncsu.edu/regulation/reg-02-20-03> Please contact the instructor immediately if you have a conflict to arrange a makeup assignment. Late arrivals and early departures are disruptive. The instructor will penalize late arrivals and early departures as unexcused absences after a warning.

Grading

NCSU and this instructor value academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences. All students are expected to abide by the Code of Student Conduct policy (NCSU POL11.35.1) <https://policies.ncsu.edu/policy/pol-11-35-01>. By submitting exams and papers, students indicate that they have neither given nor received unauthorized aid on exams or papers.

Letter Grade	Score
A	93-100
A-	90-92

B+	87-89
B	83-86
B-	80-82

C+	77-79
C	73-76
C-	70-72
D+	67-69

D	63-66
D-	60-62
F	Below 60

Assignments

- 1) Participation, including in-class discussion and presentation of key issues in the assigned reading material. (10%) See description of participation below.
- 2) 250-350 word topic, research questions and preliminary sources for the final paper **due Sunday October 6** (10%)
- 3) Bibliography for the final term paper (250 words) and suggested literature **due Sunday October 27** (10%)
- 4) Abstract for the final paper due **Sunday Nov 3** (5%)
- 5) Outline for the final paper **Sunday Nov 10** (5%)
- 6) Peer-editing of partner's rough draft due **Sunday Nov 24** (5%) and Rough Draft due **Tuesday November 26** (15%)
- 7) Presentation of the final paper in the last two weeks of class (10%)
- 8) Final paper due **Sunday December 8**. (30%) See below "Guidelines for final paper"

Late work policy

Assignments are late if not submitted by the due date and time. Late assignments will only be accepted for 48 hours after the due date and time. Late assignments will be penalized one full grade (A to B, B to C, C to D, etc.) for each late day.

Participation

This is a seminar. Seminars are based on student participation. That depends on carefully and thoroughly doing all the reading in advance, coming to class prepared to discuss the reading, and not merely discussing but raising questions to lead discussion. Students' preparation and participation will be assessed as follows:

A+ level (10%) Student's participation is outstanding in both quality and quantity. Student demonstrates a full mastery of the course material. Student comes prepared and encourages deeper engagement by other students.

A level (9%) Student is well prepared, attentive, always responds when called upon and volunteers often with pertinent answers or questions. Student demonstrates a strong facility with the course material and complex structures, but makes minor mistakes.

B level (8%) Student is usually prepared, responds when called on and volunteers on occasion. Student demonstrates a basic familiarity with assigned material, but falters with complex structures.

C level (7%) Student shows evidence of being unprepared on occasion, has trouble when called on and does not volunteer often. Student demonstrates some familiarity with assigned material, but occasionally falters on basic structures.

D level (6%) Student is unprepared, inattentive, never volunteers, or comes to class late. Student demonstrates occasional familiarity with assigned material, but regularly falters on basic structures.

F (0%) Student exhibits a lack of concern for the class, sleeps in class, or disturbs the class. Student fails to show familiarity with assigned material and/or is absent frequently.

Guidelines for final paper

The final paper assignment is to write a 15-20 page **literature review** of a significant social issue, using the insights of Science, Technology & Society. All class assignments build toward this capstone research experience. Details about the literature review will be on the course website. As part of the final paper, you will submit an abstract and complete bibliography with at least 12 external references, such as peer-reviewed papers or books. In your paper you will give a **BALANCED** and **CRITICAL EVALUATION** of STS issues related to your topic.

The papers are not meant to be a mere descriptive summary of the extant literature nor a simple survey of ideas. You are expected to:

- 1) show familiarity with the literature on the particular topic,
- 2) discern and articulate what, specifically, the relevant issue(s) is (are),
- 3) draw up a clear thesis (this paper requires you to make an argument),
- 4) critically engage your resource material and provide a balanced analysis that develops the thesis,
- 5) end the paper with a conclusion that is rooted in your research and flows neatly from your argumentation.

The final paper requires you to do additional research aside from the course readings. Please note that, except in unusual situations, you cannot rely primarily on Internet sources (other than academic journals accessible online) for your research. *All sources must be documented appropriately.* If you are unsure about how to document your paper, consult a writer's manual, such as the MLA handbook or the Chicago manual of style. Whichever recognized method you choose (footnotes, endnotes, parenthetical citations) use it *consistently* throughout the paper.

In sum, an excellent paper is one that is well-structured, fluid, free of grammatical and spelling errors, proofread, properly documented using a recognized citation style consistently throughout, thoroughly researched, provides an intelligent and constructively critical evaluation of the subject at hand, offers the reader a balanced analysis of the arguments, and leads to a lucid conclusion.

Restriction on sharing content of course materials

Copying, distributing, downloading, and uploading information on the Internet may infringe the copyright for that information. Violations of copyright law that occur on or over the university's networks or other computer resources may create liability for the university as well as the computer user. <https://policies.ncsu.edu/regulation/reg-01-25-02>

By accessing e-reserve and course web site material you agree to the following statement: "I acknowledge that all documents made available to me for the course STS 403 taught at NC State University are copyrighted and intended only for my personal use. By logging into the STS 403

associated web site, you certify that you will not share any content of the class STS 403 NC State University websites with a third party without written permission from the course instructor.

Online privacy

Students may be required to disclose personally identifiable information to other students in the course, via electronic tools like email or web-postings, where relevant to the course. Examples include online discussions of class topics, and posting of student coursework. All students are expected to respect the privacy of each other by not sharing or using such information outside the course.

Supporting fellow students in distress: As members of the NC State Wolfpack community, we each share a personal responsibility to express concern for one another and to ensure that this classroom and the campus as a whole remains a healthy and safe environment for learning. Occasionally, you may come across a fellow classmate whose personal behavior concerns or worries you, either for the classmate's well-being or yours. When this is the case, I would encourage you to report this behavior to the NC State's Students of Concern website:
<https://ncstatecares.dasa.ncsu.edu/>

Accommodations for Disabilities: Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with the Disability Resource Office on the third floor of Holmes Hall (Suite 304). For more information on NC State's policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation (REG02.20.01).
<https://policies.ncsu.edu/regulation/reg-02-20-01>.

Use of electronic devices in class: The use of personal computer device (e.g., laptops, tablets) is allowed, while *the use of communication devices (e.g., cell phones) is not allowed. Do NOT use your phone in class.* If you have an emergency that requires phone access, discuss this with the instructor in advance. Why this policy? See these links:

<https://www.insidehighered.com/news/2018/07/27/class-cellphone-and-laptop-use-lowers-exam-scores-new-study-shows>

<https://www.scientificamerican.com/article/a-learning-secret-don-t-take-notes-with-a-laptop/>

Online class evaluations will be available for students to complete during the last 2 weeks of the semester then become unavailable at 8 am on the first day of finals. Students will receive an email message directing them to a website where they can login using their Unity ID and complete evaluations. All evaluations are confidential; instructors will not know how any one student responded to any question, and students will not know the ratings for any instructors.

Evaluation website: <https://go.ncsu.edu/cesurvey> or
<https://oirp.ncsu.edu/surveys/classeval/for-students>

More information about ClassEval: <https://oirp.ncsu.edu/surveys/classeval>

N.C. State polices, regulations, and rules

Students are responsible for reviewing the NC State University PRR's which pertains to their course rights and responsibilities:

Equal Opportunity and Non-Discrimination Policy Statement

<https://policies.ncsu.edu/regulation/reg-02-50-03> with additional references at
<https://oied.ncsu.edu/equity/policies/>

Code of Student Conduct <https://policies.ncsu.edu/policy/pol-11-35-01>
 Grades and Grade Point Average <https://policies.ncsu.edu/regulation/reg-02-50-03>
 Credit-Only Courses <https://policies.ncsu.edu/regulation/reg-02-20-15>
 Audits <https://policies.ncsu.edu/regulation/reg-02-20-04>

COURSE SCHEDULE

Note: This schedule is a proposed course of action, not a contract. Dates, reading assignments, and lecture topics may change with notice.

Schedule	Assignment
Week One W 8/21 Introductions Mon 8/26 Student survey due	Knopf 2006, Pautasso 2013
Week Two W 8/28 Evaluating information	SMELL, CRAAP tests, Cook & Lewandowsky 2011, Calling B.S. website
Week Three W 9/4 Constructing controversy Sun 9/8 Individual meeting signup due Sun 9/8 Discussion signup due	Brandt 2009, Oreskes & Conway 2010
Week Four W 9/11 Risk analysis and risk perception	"Characterizing and Communicating Risk" (2016) , Slovic 1987, Gorman 2013
Week Five W 9/18 Library Research Day Sun 9/22 Draft topic questions due	No class
Week Six W 9/25 Student-led discussion Sun 9/29 Draft topic questions & sources due	Readings TBA
Week Seven W 10/2 Research workshop Sun 10/6 Topic questions due	Turabian 2013; download RefWorks or Zotero; submit questions for librarian
Week Eight W 10/9 Individual meetings	Start reading <i>Oryx & Crake</i>
Week Nine W 10/16 Individual meetings Sun 10/20 Bibliography due	Continue reading <i>Oryx & Crake</i>

Week Ten

W 10/23 Speculative Fiction

Reading: Ursula K. LeGuin, "The Ones Who Walk Away From Omelas;" [Interview with Margaret Atwood](#); *Oryx & Crake* 1-46

Week Eleven

W 10/30 Dystopia, Utopia, Anti-Utopia
Abstract workshop

Sun 11/3 Abstract due

Reading: [Interview with N. K. Jemisin](#); Kim Stanley Robinson, "Dystopias Now," *Oryx & Crake* 47-110

Week Twelve

W 11/6 Read and discuss: Atwood, *Oryx & Crake*, 113-213

Sun 11/10 Outline due

Week Thirteen

W 11/13 Read and discuss: Atwood, *Oryx & Crake*, 214-374

Wed 11/13 Questions for Atwood due before class

Fri 11/15 4:30-5:30pm Margaret Atwood at Talley Ballroom

Week Fourteen

W 11/20 No class

W 11/20 First draft due

Sun 11/24 First draft peer edits due

Individual meetings by appointment

Week Fifteen

W 11/27 Thanksgiving Break. No class; write!

Tues 11/26 Rough draft due

Week Sixteen

W 12/4 **Final presentations**

Tuesday 12/3 Presentation slides due

Sunday December 8 Final paper due

Readings:

Cook, J., Lewandowsky, S. *The Debunking Handbook* (University of Queensland, 2012).

Brandt AM. "Inventing conflicts of interest: a history of tobacco industry tactics." *Am J Public Health*. 2012;102(1):63-71.

Gorman, S. "How do we perceive risk? Paul Slovic's landmark analysis." *The Pump Handle* 16 January 2013. <http://www.thepumphandle.org/2013/01/16/how-do-we-perceive-risk-paul-slovics-landmark-analysis-2/>

Knopf, J. "Doing a literature review." PSONline January 2006.

Meyer, R. "The problem with the New York Times big story on climate change," *The Atlantic* 1 August 2018. <https://www.theatlantic.com/science/archive/2018/08/nyt-mag-nathaniel-rich-climate-change/566525/>

National Academies of Sciences, Engineering, and Medicine. (2016). *Characterizing Risk in Climate Change Assessments: Proceedings of a Workshop* (The National Academies Press, 2016)

Oreskes, N. and E. M. Conway, *Merchants of Doubt: How a handful of scientists obscured the truth on issues from tobacco smoke to global warming* (Bloomsbury Press, 2010), introduction and chapter six.

Pautasso, M. "Ten simple rules for doing a literature review." *PLOS Computational Biology* 9(7) July 2013.

Rich, N. "Losing Earth: The decade we almost stopped climate change," *New York Times Magazine* 1 August 2018. <https://www.nytimes.com/interactive/2018/08/01/magazine/climate-change-losing-earth.html>

Slovic, P. Paul Slovic, "Perception of risk," *Science*, New Series, Vol. 236, No. 4799 (Apr. 17, 1987), pp. 280-285

USGCRP, 2018: *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II* [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC.