

Science, Technology and the Modern World

HTS 2100

Class 10:40 pm – 1:45 pm MWF

Clough Commons 102

May 14, 2012 – Jun 18, 2012

Wenda Bauchspies, PhD

G23 Old Civil Engineering

Office Hours: 9:00–10:00 MWF and other hours by appointment.

wkbauchspies@gatech.edu

404 385 3382

Introduction: My objective in teaching this course is to introduce you to using a sociological, cultural and historical imagination to understand the development and use of science and technology in culture and history.

Learning Outcomes:

- Think critically and constructively about science and technology.
- Identify strengths and limitations of science and technology within a social and cultural context.
- Make an informed argument about competing scientific, technological, political and/or social priorities within a socio-cultural historical framework.
- Make a presentation on the societal pros, cons, and nuances of an emerging technology and lead a discussion about it with your peers.
- Identify and evaluate the role of values and ethics in the discovery, design, use, and/or life cycle of a technology or scientific idea

Required Text:

Easton, Thomas A. 2012 *TAKING SIDES: Clashing Views in Science, Technology, and Society*, 10/e, ISBN 97800780502745

Course Requirements:

Attendance and Participation:

You are expected to be present for the entire class to be counted as present and to receive 2 pt. You must be present for the entire class period to submit work timely on the due date. In addition class participation is valued at 2 pt per day. Some days we may do class activities that will also provide opportunities for additional points. (14 days of class, 4 pts possible each day = **56 total points** possible for attendance and participation.)

Daily for Class: Before every class please complete your T-Square Blog on the reading. The Blog will be composed of one multiple choice question, complete with 5 options and the correct answer indicated that is based on the day's reading and a short paragraph between 300-500 words that explores the question, its answer and what it tells you about science/technology and society. Blogs start the 18th May and end 17th June for a total of 12 (exempt the day of your presentation). 7 pts each or **84 pts total**.

Presentations: Select one of the 14 or 15 issues that we will be exploring as a class. Working in Pairs/Groups you will analyze and present the issue to the class. Using the two sides given in the text, find additional materials (via academic databases) that support and provide other perspectives to the issue. Prepare a presentation as a group (**40 pts**) that will discuss and address the following points *as they apply* to your topic/issue (be precise and specific as

possible, to provide concrete examples to ground your presentation):

1. Historical context
2. Social and cultural context
3. The human values and institutions that support/nurture it
4. Identify the major, minor and invisible actors that are part of this discussion.
5. How does it contribute to production, economic organization and/or social order?
6. What is its relation to the nation-state? To democracy?
7. What Social Conflicts or Ethical Dilemmas does it raise? Why?
 - a. Identify the ethical issues involved, why and for whom.
 - b. Identify values involved, why and for whom.
8. Who benefits? Who is harmed? Who is excluded?
9. What cultural values does it (could it) reproduce? Why?
10. What are the unintended consequences and why? For whom?
11. Future considerations for science, technology and society?
12. An international example that illustrates how culture, values or ethics are shaping or engaged with this issue. (Every student will be responsible for finding one example of this from an academic source for inclusion in the presentation and their paper.)

Conclude with discussion questions to help the class to consider multiple perspectives and considerations for thinking through the issue. Groups are welcome to include video clips that reinforce and illustrate aspects of the presentation. If the group wants to include a video clip (no longer than 20 minutes) please submit it to the instructor 24 hours before the presentation and explain how you will use the video clip, why you selected this clip and what aspects of the presentation it will relate to. (Hint: Through the Ga Tech Library access: Galileo and then Films on Demand, to find a wealth of educational/documentary videos.
<http://digital.films.com/Dashboard.aspx>)

Please post your presentation to the drop box, before class on the day of your presentation.

At the beginning of class on the day of your presentation – submit a completed page 5 and 6 of the syllabus. You will need to hand in the grading rubric at the time of your presentation, in order for your presentation to be graded.

Each team member will submit a paper (5 pages per person – **50 pts per person**) that covers the questions that they addressed and researched for the presentation (a minimum of 5 out of the 12 guiding questions [remember 12 is mandatory for all students]). Please include a bibliography (minimum of 5 academic sources for a “C”) and use proper citation methods. Please ensure that the paper is coherent, unified and concise with an introduction, supporting paragraphs and conclusion. Paper is due 8 June 2011 in class at the start of class. Only timely papers will be graded.

Final Exam: Multiple choice exam. **100 pts.**

Extra Credit: Due 15 June 2012. 10-15 pts. Suggest a topic for a new chapter in Taking Sides. In a one page, single space document that is concise and precise explain why this topic would be appropriate for Taking Sides; what the pro and con side would be and why; what aspects of technology, science and society would it illustrate and how; and how/why it would appeal to its targeted audience – ie college students.

Notice: reading is to be completed before class of the day that it is associated with.

Week	Reading Monday	Reading Wednesday	Reading Friday
14, 16, 18		Issue 1. Should the Public Have to Pay to See the Results of Federally Funded Research?	Issue 3. Should the Internet Be Neutral?
21, 23, 25	Issue 4. Is It Time to Think Seriously About "Climate Engineering"?	Issue 5. Is It Time to Revive Nuclear Power?	Issue 6. Is America Ready for the Electric Car?
X, 30, 1		Issue 8. Is There Sufficient Scientific Evidence to Conclude That Cell Phones Cause Cancer?	Issue 9. Should DDT Be Banned Worldwide?
4, 6, 8	Issue 10. Can Infectious Animal Diseases Be Studied Safely in Kansas?	Issue 11. Are Genetically Modified Foods Safe to Eat?	Issue 14. Do Humans Belong in Space?
11, 13, 15	Issue 16. Do Government Internet Surveillance Efforts Threaten Privacy and Civil Rights?	Issue 18. Is "Animal Rights" Just Another Excuse for Terrorism?	Issue 19. Should We Reject the "Transhumanist" Goal of the Genetically, Electronically, and Mechanically Enhanced Human Being?

Final exam: June 18.

Grading Scale:

Your Points/Total Points = 90% and above) = A
Your Points/Total Points = 80% to 89% = B
Your Points/Total Points = 70% to 79% = C
Your Points/Total Points = 60% to 69% = D
Your Points/Total Points = less than 59% = Failing

General Notice:

All writing assignments are to be typed with a 10 or 12 point font. If this is a hardship for you, please see me. Please use gender neutral pronouns (i.e. he/she, they) and proper citations. All written work is to be your own original work and may not have been submitted in another class for a grade. Plagiarism violates GaTech's code of conduct and students who plagiarize will be reported to the Dean of Students. If you have any questions whatsoever, read the Honor Code and discuss it with me. It is available at: www.deanofstudents.gatech.edu/Policy/code.in.sections.htm#AHC.

Always use proper citation practices. If you have questions about writing and citation practices, please see me and/or the library's website: http://www.library.gatech.edu/search/citation_guide.php. If it should happen that you need to deviate from the established syllabus in any way for any reason please be respectful of yourself, your classmates and the instructor by attending to the situation in a respectful, honest and professional manner.

Georgia Tech complies with the regulations of the Americans with Disabilities Act of 1990 and offers accommodations to students with disabilities. If you are in need of a classroom accommodation, please make an appointment with the ADAPTS office to discuss the appropriate procedures as soon as possible in order for us to make appropriate modifications to ensure your success in HTS 2100. The website for ADAPTS is: <http://adapts.gatech.edu>. Please note that accommodations can only be made for the future.

The instructor reserves the right to alter the syllabus as needed. All changes will be announced in class and on T-Square. It is the student's responsibility to stay informed.

Presentation Grading Rubric

Name:

Topic:

Guiding Questions that you were responsible for:

1 2 3 4 5 6 7 8 9 10 11 12

For the Instructor's use:

Content	Possible Points	Awarded Points
Presenters provide an informative, and interesting introduction/overview of the topic and articles that illustrates a clear understanding that engages the audience.	8	
Presenters are able to converse on the topic in thoughtful, researched, knowledgeable manner. Appropriate and relevant examples.	8	
Presentation is a logical and well-structured discussion and is responsive to the 12 guiding questions. Delivery is professional.	8	
Presenters use creative and informative visual aids that enhance the presentation.	8	
Discussion questions are appropriate, bring out the nuances of the issue and generate class conversation.	8	
Total	40	

EVALUATION FORM for CLASS PRESENTATION

Please evaluate each of your group's members (INCLUDING YOURSELF). Please be honest and thoughtful in your evaluations. This is due the day of your presentation.

Name of person being evaluated _____

On a scale of 1–10 with 1 being the lowest and 10 being the highest, rate this individual on the following:

- _____ cooperation
- _____ presence/absence during planning/work
- _____ knowledge and preparedness
- _____ contributions to overall effort

Name of person being evaluated _____

On a scale of 1–10 with 1 being the lowest and 10 being the highest, rate this individual on the following:

- _____ cooperation with the group
- _____ presence/absence for group planning/work
- _____ knowledge and preparedness
- _____ contributions to overall effort

Name of person being evaluated _____

On a scale of 1–10 with 1 being the lowest and 10 being the highest, rate this individual on the following:

- _____ cooperation with the group
- _____ presence/absence for group planning/work
- _____ knowledge and preparedness
- _____ contributions to overall effort

Other comments:

Evaluated by _____ Presentation Due Date _____

Your group's topic _____