English 310:
Writing / Speaking and Technoscience in the 21st Century

Dr. Nathan A. Jung

Class: TR 11:00-12:15 CRT 124
Office: 508 Curtin Hall
Office Hours: TR 3:15-4:15 pm NWQ Atrium, or by appointment
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Introduction

Overview
Our country (and our planet) face an increasingly complex set of challenges regarding our environment and quality of life. Many of these challenges can be addressed through science and technology. But how do we frame and address complex problems in a public setting? Can we communicate the values and uses of science and technology when problems are characterized by trade-offs rather than simple solutions?

This course will introduce students to the theories and practices of communicating about science and technology. Through exposure to the literature of STS (Science and Technology Studies), students will examine popular science writing and the sociology and rhetoric of science; they will also develop skills in speaking and writing about science and technology to a variety of audiences.

Books
Other readings on Canvas
Course Learning Outcomes (CLOs)

Successful students will be able to:

1. Define technoscience
2. Identify the relationships between science, engineering and technology
3. Analyze the social and cultural dimensions of technoscience
4. Articulate the role networks play in technoscience
5. Position themselves as both producers and consumers of technoscience
6. Discriminate between strong vs. weak sources and arguments about technoscience
7. Connect the fields of rhetoric and communication and technoscience
8. Deploy more precise tools for analyzing audiences, both technical and non-technical, and for adapting communications to them.
9. Apply ideas and theories from science studies to concrete technoscientific, political, and social problems.

OWC-B Requirement

This course satisfies the Oral-Written Communication-B requirement for UWM students, as it combines a series of speaking and writing assignments, based on research and course materials, which are adapted for specific audiences and purposes. Earlier assignments build skills toward a major research project, and three assignments receive feedback in draft form. Each student will have an in-class conference with the instructor while preparing for the final speech/paper.

GER Humanities

This course satisfies a UWM General Education Humanities requirement because it allows students to identify the formation, traditions, and ideas essential to a major body of historical, and cultural knowledge, applying diverse humanistic theories or perspectives to other branches of knowledge or to issues of universal human concern. This course also addresses the UW System Shared Learning Goal of improving effective communication skills

Time Commitment

Students should expect to spend 4-6 hours per week on assigned readings and researching examples. Weeks with written work due will require 2-3 additional hours.
### Assignments
Full versions of all assignments will be posted to Canvas. The descriptions below are a sketch. Due dates for all assignments are provided on Canvas and the daily schedule, and are subject to change.

### Working Groups
Students will form themselves into five working groups, and each group will choose a general topic area. For this area, and in preparation for various assignments, they will develop the following knowledge, individually and as a group:

- Basic technical understanding
- Social/cultural/economic aspects
- Wicked problems
- Evolving/new technologies
- Evolving new applications

Potential topics for working groups include:
- Automation (industrial)
- Energy
- Waste
- Transhumanism
- Infrastructure
- Urban Planning
- Climate Change
- Food/Nutrition Science
- Telecommunications
- Intellectual Property

## Course Assignments

### Graded Papers and Presentations

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<tr>
<th>Assignment Type</th>
<th>Description</th>
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<tr>
<td><strong>Annotated Bibliography</strong> (Individual)</td>
<td>A bibliography of 10 scholarly sources on your working group topic, with annotations.</td>
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<tr>
<td><strong>Audience Analysis</strong> (Individual)</td>
<td>An analysis, for a specific topic, of audiences and stakeholders.</td>
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<tr>
<td><strong>Network Analysis</strong> (Partial Group)</td>
<td>A verbal and graphical analysis of a network, as defined in class, related to your working group topic.</td>
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<tr>
<td><strong>Ignite</strong> (Partial Group)</td>
<td>A 5-minute talk on one aspect of your working group topic, using 20 slides which automatically advance after 15 seconds.</td>
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COMMITMENT

TEDx (Group): An 8-10 talk on your working group topic emphasizing narrative and images.

Technical Report (Group): Based on the material in the TEDx.

Press Packet (Group): A collection of professional quality materials presenting a plan to introduce your working group topic to the public.

Final Reflection (Individual): A brief essay in which each student will reflect on what they learned in the course and how they will use it.

Commitment: 15% of the grade this semester will be based on the instructor’s judgment of your “commitment,” which represents your commitment to improving the learning environment for yourself and other students, during the discussions and any other class interactions; the instructor will keep track of each student’s participation and professionalism. Included in this assessment are behaviors like:

1. Reading all class discussions and materials on a weekly basis;
2. Participating in on-line and class discussions;
3. Providing thought-provoking, original, and high-quality comments;
4. Submitting assignments on time and in the proper formats;
5. Treating your fellow classmates and the professor with respect;
6. Participating with evident enthusiasm and interest;
7. Not flaming or disrespecting fellow classmates or the instructor, either online or face-to-face.
8. Being Fully Present: Not using a cellphone in class, and using a tablet or laptop for only class-related reasons.

Students will receive a private evaluation of their commitment behaviors around the middle of the term.
Teamwork

All team members must be involved in a substantive way. The papers and presentations should be coherent and “all of a piece,” not just individual pieces thrown together.

You are required to participate fully in your team; you should be an active and involved member, and cannot rely on group members to “get in touch with you,” “tell you what to do,” etc.

The most effective teams develop and maintain a plan of work early in the term, respecting each other’s schedule, job and work habits.

If a member of a team feels like the other person is not pulling his/her weight, that member should follow these steps:

1. Have a discussion with the other person, seeking a solution. Refer back to your work plan and work diaries.
2. If no resolution is reached, meet with the instructor.

Teams may not decide to fulfill assignments as individuals without explicit permission from the instructor, which will rarely ever be given.

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<th>Assignment</th>
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<tr>
<td>Annotated Bib</td>
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<td>Network Analysis</td>
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<td>Press Packet</td>
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<td>Final Reflection</td>
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<td>Commitment</td>
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Learning Ensembles

Your presence in class is important not only for your own learning and for the learning of your peers but also because our goal is to create a Learning Ensemble this semester—a group of learners who support, trust, and share in the learning process.

An ensemble implies that there is a group of people who are all committed to achieving a similar goal and who support each other in pursuit of that goal. An ensemble implies a whole: a group that collaborates together to produce something. Everyone must play an important role in getting the group toward the goal.

Learning works best in an ensemble; it is a team sport.

- Learning in this class is not about the professor dumping information for you to regurgitate.
- It's about all the participants engaging in an ongoing conversation and working together to explore new knowledge and to move that conversation forward and make connections to our individual and collective experiences.
- We are not in competition with one another.
- Learning is not a scarce resource that we have to divide between ourselves—there is plenty of learning for all of us
- We aren't trying to defeat anyone in the class or out-perform one another.
- We should all strive to help everyone get to the end of the course successfully.

In an ensemble each person benefits and grows because they interact with other people who bring different ideas and skill sets. An ensemble is about learning from others and making each other shine.

Course Policies

Turning in assignments

You must turn in all written work to the appropriate dropbox by the dropbox deadline in order to pass the class. If you do not do this, you will not be able to pass the class.

Policy on late work

For written assignments, there will be two dropboxes: The first will be for work turned in on time and will be open until the deadline; the second will be for late work and it will be open from the original deadline until five days after that deadline. Once the deadline has passed, one letter grade will be deducted from the grade for each 24-hour period that it is submitted late,
### On the days you are scheduled to speak

In order for a class with presentations to function effectively, there must be both a speaker and an audience present for performances. Therefore, it is imperative that you attend class on speaking days. Due to the difficulty of verifying excuses, and the possibility that some students may be less than honest, there will be almost no excuses accepted for speaking days. Basically, if you don’t show up on the day you are assigned to speak, you will get a zero for that assignment.

### Formats

All written work must be saved in Word, and must be submitted to the appropriate D2L Dropbox. Materials in other formats, or submitted to the instructor via e-mail, will NOT be accepted.

### Syllabus modification

In the event that some modification is needed, advance notice will be given. Please regularly check the class website for any modifications that may be made.

### Academic Misconduct

Acts of plagiarism and cheating represent serious acts of misconduct. You are expected to abide by general UWM rules and regulations regarding academic misconduct. Misconduct includes, but are not limited to, cheating on exams and knowingly presenting the work of others as though it was your own, including copying language from others, and using the ideas of others without acknowledging your sources in papers and presentations. You should label any work that is not your own, using a standard citation style. When in doubt, ask whether, and how, to cite a source. Work turned in for credit in other courses may NOT be turned in for credit in this course.

https://www4.uwm.edu/dos/conduct/academic-misconduct.cfm

### Additional policies

**Statement of Basic Needs.** Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the Dean of Students for support. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to provide any resources that they may possess.

**Students with disabilities.** Students with disabilities requiring accommodation should contact the Accessibility Resource Center (ARC) as soon as possible to secure the necessary documentation. Additional information is available on the ARC website.

http://www4.uwm.edu/sac/SACltr.pdf
Religious observances. Accommodations for absences due to religious observance shall be made available according to applicable UWM policies.  
http://www4.uwm.edu/secu/docs/other/S1.5.htm

Students called to active military duty. Accommodations for absences due to call-up of reserves to active military duty should be made available according to applicable UWM policies.  
http://www4.uwm.edu/current_students/military_call_up.cfm

Incompletes. An "incomplete" may be given in lieu of a final grade to a student who has carried a subject successfully until the end of a semester but who, because of illness or other unusual and substantiated cause beyond the student’s control, has been unable to take or complete the final examination or to complete some limited amount of term work.  
http://www4.uwm.edu/secu/docs/other/S31.pdf

Discriminatory conduct (such as sexual harassment). Discriminatory conduct will not be tolerated by the University. It poisons the work and learning environment of the University and threatens the careers, educational experience, and well-being of students, faculty, and staff.  
http://www4.uwm.edu/secu/docs/other/S47.pdf

Complaint procedures. Students may direct complaints to the head of the academic unit or department in which the complaint occurs. If the complaint allegedly violates a specific university policy, it may be directed to the head of the department or academic unit in which the complaint occurred or to the appropriate university office responsible for enforcing the policy.  
http://www4.uwm.edu/secu/docs/other/S49.7.htm

Grade appeal procedures. A student may appeal a grade on the grounds that it is based on a capricious or arbitrary decision of the course instructor. Such an appeal shall follow the established procedures adopted by the department, college, or school in which the course resides or in the case of graduate students, the Graduate School. These procedures are available in writing from the English 205 Business Writing Page 5 respective department chairperson or the Academic Dean of the College/School.  
http://www4.uwm.edu/secu/docs/other/S28.htm