

Communication in the Sciences

COMM 575: Communication in the Sciences • Fall 2013 • W 1-3:345 • Fitch 207

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Office Hours: TR 10:00-11:00, or by appointment



Course Overview

Welcome to COMM 575: Communication in the Sciences. This course is designed to provide graduate students with opportunities to learn successful communication strategies in the sciences. This collaborative, hands-on course invites students to explore various scientific genres and rhetorical contexts and to speak with professionals in the field about their own communicative experiences. Most importantly, it aims to help students develop strategies for approaching future communicative tasks. Students in this course will also have the opportunity to produce material that can be adapted for conference presentations, articles for publication, thesis/dissertation chapters, etc. Course goals include the following:

- Communicate technical information clearly and concisely to a variety of audiences.
- Analyze scientific literature in the field for examples of disciplinary conventions and effective writing strategies.
- Analyze research presentations for effective presentation strategies.
- Develop successful writing and editing habits and strategies.
- Deliver clear and effective oral presentations.
- Develop strategies for working collaboratively and providing/using peer feedback.
- Paraphrase, summarize, and cite secondary sources ethically and accurately.

Textbooks

Harmon, J.E. & Gross, A.G. (2010). *The craft of scientific communication*. Chicago: The University of Chicago Press.

Course Assignments

Course project descriptions may change slightly to account for the needs of the class and students. Below is a description of the two major course projects:

Communicating Research to the Public. This small assignment introduces strategies for communicating your research to audiences outside your specific field of study. This assignment has two parts:

- ***“Artifact” analysis.*** Each student will find an example of an “artifact” (for example, an article, a scientific newsletter, a presentation video, a research website) designed to communicate research to an audience outside his/her field of study (for example, to the “general public,” to policymakers, to scientists from other disciplines, etc.) You will write a one-page memo analyzing this “artifact.” Also, be prepared to present your artifact to the class.
- ***“TED-Tech” Talk.*** Students will prepare a 5-minute TED Talk style presentation describing a concept in their field of study to non-specialists. Presentations will be accompanied by a descriptive visual (e.g., a PowerPoint slide, a figure or diagram) that helps them present this concept.

Departmental Seminar Analysis and Report. This assignment will vary from department to department. Students who are required to attend seminars within their departments (e.g., Petroleum and Natural Gas Engineering, E&ES) will evaluate at least 5 presentations over the course of the semester. Students will be asked to complete a departmental seminar evaluation sheet. Also, after evaluating 5 presentations, students will write a 1-page memo explaining what they learned about presenting from these sessions. If your department does *not* have departmental seminars, please see me, and we will discuss an alternative. Note: I suggest that students start this assignment early in the semester!

Course Project and Presentation. I will contract separately with each student on a course project that will meet their present needs as student researchers. For each course project, students will complete the following tasks, which will be spread out over the semester:

- ***Literature Review or Summary.*** Students will provide a short review of the literature on their topics or a summary of key sources. (20 pts.)
- ***Course Paper.*** Students will each write a course paper on the topic they propose to the instructor. The teacher and student will agree on the size and structure of the paper. Advanced students might work on a portion of their thesis or an article for publication. New students might write an extended literature review on their topic. (50 pts.)

- *Short Conference-style Presentation.* Students will prepare short oral presentations on their paper topic (with PowerPoint) and present them to the class or to another audience determined by the instructor and students. (30 pts.)

Note: While the projects that you are working on for this class may be useful in other contexts, each assignment must be produced for this class. You may not submit something you have already written elsewhere.

Smaller Course Assignments

Course Readings. Assigned readings must be completed by class time on the day they are due. I will post all readings at least one week in advance and will make any readings given out in class available electronically. **You are responsible for any readings assigned on a day in which you are absent.** If you miss a class, check with your classmates or with the instructor for any assignments you might have missed.

Peer Review. You will be asked to comment on your peers' work in small writing groups. Your participation in informal peer review sessions will count toward your class participation grade.

Grading Policy

I will use the following grading scale to assess your work: A (90-100), B+ (88-89), B (83-87), B- (80-82), C+ (77-79), C (73-76). The breakdown of grades will be as follows:

- 10% Class Participation
- 20% Departmental Seminar Analysis
- 20% Communicating Research to the Public
- 50% Course Project and Presentation

Course Policies

Attendance Policy. Due to the interactive nature of this class, your attendance at each class session is critical. If you are ill or must miss class for another valid reason (e.g., traveling for a conference, etc.), please speak to me about excusing your absence. Students with more than 2 unexcused absences will have their final grade lowered by one full letter.

Late Submissions. You are expected to complete all assigned work in a timely manner. Please contact me about emergencies that prevent your completion of an assignment.

Ethical Conduct. The administration, faculty, and your fellow students at New Mexico Tech expect you to act ethically. This includes not cheating, falsifying information, or plagiarizing, actions which may result in you receiving a failing grade for the class, or sending you before the Disciplinary Board for more severe treatment. Other non-ethical acts may also be cause for

disciplinary action. See the *New Mexico Tech Student Handbook* for more information and a more complete description. (<http://www.nmt.edu/nmt-student-handbook>)

Syllabus, Schedule, and Office Hours. I will amend the syllabus throughout the semester based on the needs of the class. Therefore it is *extremely* important to check with me or with a classmate about assignments if you miss a class. *You are responsible for what goes on in class when you are absent!*

I try to keep regular office hours, though I occasionally need to miss them for meetings and Writing Center obligations. You're more than welcome to come by, but it's a good idea to e-mail first.

NMT Writing Center & Oral Presentation Center. Students are reminded that the Writing and Oral Presentation Center is open for graduate students. Representatives from the center will visit and participate in our class regularly. Students are welcome (and encouraged) to work on any class projects with center staff. Also, students are encouraged to visit the center for any writing or communication tasks related to their research or other classes. The Writing & Oral Presentation Center is located in 017 Fitch Hall (right next to my office). Students are welcome to drop in, though it is best to e-mail first (write@nmt.edu).

Date	Class Topic/Activity	Assignment Due
W Aug 21	Introductions; discuss syllabus	
Unit 1: Communicating to Different Audiences		
W Aug 28	Communicating in science; audience analysis	<ul style="list-style-type: none"> • <i>Craft</i>, ch.11; TBA
W Sep 4	Communicating to different audiences	<ul style="list-style-type: none"> • Read from <i>Explaining Research</i>, TBA • Bring “artifacts” from your field • Artifact Analysis memo
W Sep 11	Communication round table/guest speakers	<ul style="list-style-type: none"> • Reading TBA • Discuss visuals • Schedule conference to discuss course project
Unit 2: The Scientific Article—Moves that Matter		
W Sep 18	Short presentations; moves that matter	<ul style="list-style-type: none"> • “TED-Tech” Talk Due
W Sep 25	The scientific article; literature reviews	<ul style="list-style-type: none"> • <i>Craft</i>, ch.1 & 8; additional reading on Moodle
W Oct 2	The scientific article; literature reviews; paraphrasing and citing research	<ul style="list-style-type: none"> • Find research for your literature reviews and bring to class
W Oct 9	Writing Group 1	<ul style="list-style-type: none"> • Rough Draft of Literature Review Due
W Oct 16	Methods, Results & Discussion	<ul style="list-style-type: none"> • <i>Craft</i>, chs. 4 & 6
W Oct 23	NMT thesis and dissertation information / guest speaker	<ul style="list-style-type: none"> •
Unit 3: Presentations and Academic Correspondence		
W Oct 30	Technical editing and style	<ul style="list-style-type: none"> • <i>Craft</i>, ch. 14 & 15
W Nov 6	Job Correspondence Materials	<ul style="list-style-type: none"> • First draft of project due
W Nov 13	Conference Presentations and PowerPoint	<ul style="list-style-type: none"> • <i>Craft</i>, ch. 12 & 13
W Nov 20	Writing Group 3	<ul style="list-style-type: none"> • Drafts of Course Projects Due
W Nov 27	Writing Group 4	<ul style="list-style-type: none"> • Final Presentation (Draft of PowerPoint)
W Dec 4	Final Presentations	<ul style="list-style-type: none"> • Final Presentations
M Dec 9	No Final	<ul style="list-style-type: none"> • Last day to turn in Final Drafts of Everything!