

CHMY 305e: Ethics, Science Writing, and Chemistry Literature – Fall 2017

Instructor Sandy Ross, sandy.ross@umontana.edu, no phone extension

Lectures Tuesday/Thursday 12:30-1:50 pm

Office hours M/F 11:00-noon or by appointment. If not in office, I can be reached by email.

Course Website: <https://moodle.umt.edu/>

Course Description

CHMY 305e – Ethics, Science Writing, and Chemistry Literature – is an upper-division writing course and a general education course, Group VIII: Ethical and Human Values.

Learning Objectives

- Appreciation of three major Western ethical traditions (virtue, deontological, and utilitarian ethics)
- Practice of ethics in scientific research, discourse and writing
- Conveying scientific information in different formats to different audiences
- Effective use of library and internet databases
- Effective writing skills for a profession in the sciences

Course Content

- **In-class work**
 - We will work as a team and in small groups to practice skills of organization, development, language use, and style required for high-quality scientific writing.

- **Out-of-class work:**

Reading: Read assigned portions of the required textbooks and other material **before** class. These readings will inform the lecture topics, discussions, and writing assignments.

Writing: There are four major assignments:

- 1 Analyze a scientific paper (Anatomy of a Paper).
- 2 Write an analysis of an ethical violation in science (Ethics Violation Essay).
- 3 Research a current public issue involving science. Write two three-page essays: first, write a persuasion essay to convince your peers about your view; second rewrite the persuasion essay for the general public (Persuasion Essay).
- 4 Prepare a résumé and cover letter for a job application (Résumé & Cover Letter).

Textbooks

- Michael J. Sandel, “Justice: What’s the Right Thing to Do?”, Farrar, Straus, and Giroux, NY, 2010.
- “The ACS Style Guide. Effective Communication of Scientific Information”, 3rd ed., Coghill and Garson, eds., American Chemical Society, 2006.

Course Materials

- Assignments and other material will be posted on Moodle.
- Online lecture at <https://www.youtube.com/watch?v=kBdfcR-8hEY> by Michael J. Sandel, Dept. of Government, Harvard University.
- Read sections 1 and 2, including case study and questions, from “Free Research Ethics Online Course” at: <http://www.umt.edu/ethics/courses/researchethics/default.php>
- Read “What is Ethics in Research & Why is it Important?” at: <http://www.niehs.nih.gov/research/resources/bioethics/whatis/>

Final

Assemble a technical portfolio consisting of your written work for the semester.

Attendance

1. Make every effort to attend each class because lectures, in-class exercises, discussions and guest lectures are all arranged to enhance your skills. Missing classes is likely to adversely affect your ability to progress through the assignments. This, in turn, can affect your grade negatively.
2. Contact Dr. Ross prior to missing a class or immediately after an illness.
3. Each student will meet with Dr. Ross by appointment to review progress in the course.

Evaluation

1. In-class evaluation will be based on:
 - a. class participation
 - b. participation in the writing and library workshops
 - c. quiz
2. Out-of-class work will be judged by:
 - a. ability to improve each draft
 - b. improvement in all writing skills over the course of the semester
 - c. incorporation of appropriate ethics discussion in Ethics Violation Essay and Persuasion Essay
 - d. portfolio

Disability

The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and [Disability Services for Students](#). If you think you may have a disability that can affect your academic performance adversely, and you have not already registered with Disability Services, please contact Disability Services in Lommasson Center 154, (406)-243-2243. We will work with you and Disability Services to provide appropriate accommodation.

Legal Notice

This syllabus is not a contract; it is an outline of course policies, requirements, and initial schedule. Changes may be made in content and schedule during the semester at the discretion of Dr. Ross.

Academic Misconduct

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by a course instructor and/or disciplinary sanction by the University. All students must be familiar with the conduct code: http://www.umt.edu/vpsa/policies/student_conduct.php.

CHMY305E – Fall 17 Schedule

Week	Date	Topic	Preparation	Assigned Homework	Due Moodle**
1	R Aug. 31	S. Ross: Introduction J. Hansen: Writing Center	Writing a summary Reading a paper	three scientific papers: choose one	
2	T Sept. 5	B. Brown: science databases	class in MLSLC	ACS: guide assignment	
	R Sept 7	B. Brown: science databases	class in MLSLC	ACS: guide assignment	Anatomy: 1 9/8@5 pm
3	T Sept. 12	Editing, exercises, quiz, in-class write abstract for assigned paper			
	R Sept. 14	online lecture by Sandel	Sandel, chap. 1, lecture on Moodle	Thoughts on Trolley scenarios	Trolley: 9/15@5 pm
4	T Sept. 19	Utilitarianism	Sandel, chap. 2		
	R Sept. 21	Utilitarianism	Sandel, chap. 2	summary: utilitarianism	Anatomy: 2
5	T Sept. 26	Deontology	Sandel, chap. 5		summary 1: 9/25@9 am
	R Sept. 28	Deontology	Sandel, chap. 5	summary: deontology	
6	T Oct. 3	Virtue ethics	Sandel, chap. 8	review of progress 10/2/17-10/6/17	summary 2: 10/2@9 am
	R Oct. 5	Virtue ethics	Sandel, chap. 8	summary: virtue ethics	
7	T Oct. 10	J. Hansen: Ethics Violation prompt S. Ross: Practical Ethics in Science	handout	Ethics Violation	summary 3: 10/9@9 am
	R Oct. 12	IRB (modules 1,2,4)	see syllabus		
8	T Oct. 17	O. Berryman: SciFinder Scholar	class in MLSLC		E V draft 1
	R Oct. 19	Basics of peer-review process	See Moodle resources		
9	T Oct. 24	Review session: mechanics	class notes	Persuasion Essay	
	R Oct. 26	Independent Research	class in MLSLC		E V draft 2
10	T Oct. 31				P E outline
	R Nov. 2	N. White: public writing			
11	T Nov. 7	D. Anderson: grants & proposals			
	R Nov. 9	J. Kyle: patents			P E draft 1
12	T Nov. 14	J. Hansen: Analysis of PE draft		review of progress 11/13/17-11/17/17	
	R Nov. 16	Independent Research	class in MLSLC		
13	T Nov. 21	J. Burham: Career Services, résumés and cover letters			P E draft 2
	R Nov. 23	Thanksgiving Break			
14	T Nov. 28	H. Steele: Presentation Zen			résumés D1
	R Nov. 30				
15	T Dec. 5				résumés D2
	R Dec. 7	Student Presentations on PE			
Final	T Dec. 12	Student Presentations on PE			
	R Dec. 14		10:10 am - 12:10 pm	Portfolio Due	

*Assignment due dates may differ from class dates

Invited Experts

- Dr. Don Anderson, Center for Environmental Health Sciences
Grant writing: stylistic, substantive, and ethics in the preparation and review of grant proposals
- Dr. Orion Berryman, Department of Chemistry & Biochemistry
SciFinder Scholar
- Dr. Barry N. Brown, Mansfield Library
Reference management, citation indexes, and comprehensive science literature searches
- Jon Burham, MA, Career Counselor, Career Services
Preparing a résumé and cover letter
- Jacob Hansen, MA, Associate Director, The Writing Center
Function and capabilities of The Writing Center, tutor availability
- Jean Kyle, Esq., School of Law
Protection of intellectual property, rights conveyed by a patent, the criteria of patentability, the process of obtaining a patent, and the ethics of intellectual property protection and use
- Harmen Steele, Doctoral Student, Biochemistry & Biophysics Program
Presentation Zen
- Dr. Nadia White, School of Journalism
Presentation of scientific ideas, accomplishments, and goals to the public reader; practice of ethics in scientific journalism