EXPOSITORY WRITING E-42c/W

WRITING IN THE SCIENCES

Expo E-42c/W (14538)
Fall 2015
Mondays 7:40-9:40 ET via online web conference
https://canvas.harvard.edu/courses/4386

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DESCRIPTION

This "writing intensive" course will consider the discourses of knowledge that animate writing in the sciences. The course is aimed at students considering careers or advanced study in the natural, computational, or applied sciences. Students consider how scientific texts address an audience, make claims, invoke prior claims, deploy keyterms, and engage quantitative and visual evidence. Course writing, like all discourses in the making of knowledge, will be socially engaged: students will "publish" it for fellow writers, who will review it and respond with specificity.

Course writing begins with critical reading of key examples, identified by students, of the genres of scientific literature. This project is followed by an academic research paper on a student's choice of topic in a form common to most scientific disciplines, the literature review. Next comes a reference document or, alternatively, at the student's choice, a research proposal; either project may build on the literature review. The final project is a professional portfolio presenting the work of the term. *Students will pursue their own scientific interests in each unit.* They are encouraged to link, as directly as they wish, their work in this course to their own professional work in science and/or to other course work in science.

This course fosters skills in preliminary writing, drafting, revision, peer review, and research into the scientific literature. It offers sustained practice in the construction of precise sentences, coherent paragraphs, and well-ordered documents. It considers the strategic use of visual elements in the presentation of quantitative information. Students will engage complexity in terms, concepts, and judgments; exercise self-critique; and write with concision and flair. Students will cultivate an authoritative voice in the scientific disciplines that offers coherent, meaningful knowledge to a specific, disciplinary audience.

PRINTED TEXTS

AT THE HARVARD COOP, 617.499-2000, and widely available elsewhere

Scott L. Montgomery, *The Chicago Guide to Communicating Science*. Chicago: U Chicago P, 2003. (Available in print or electronic editions; either is suitable)

ONLINE TEXTS (available through the course website)

- Course readings from the scientific literature, specified in each assignment description
- *Harvard Guide to Using Sources (HGUS)* (http://usingsources.fas.harvard.edu).
- *Bedford/St. Martin's Research and Documentation Guide,* (http://bcs.bedfordstmartins.com/rewriting2e/#526483__933235__)
- *Oxford English Dictionary* (http://www.oed.com.ezp-prod1.hul.harvard.edu/)
- *New Oxford Dictionary for Scientific Writers and Editors* (http://www.oxfordreference.com.ezp-

prod1.hul.harvard.edu/view/10.1093/acref/9780199545155.001.0001/acref-9780199545155?rskey=T9iQUF&result=97)

- Purdue Online Writing Lab (OWL) (http://owl.english.purdue.edu/owl)
- Purdue OWL Grammar Guide (https://owl.english.purdue.edu/owl/section/1/5/)
- Harvard Library dedicated Writing in the Sciences Research Guide: (http://guides.library.harvard.edu/akbari)
- Other selected readings and reference material

OPTIONAL TEXTS

- Richard Lanham, *Revising Business Prose*. 4th ed. Longman, 1999. ISBN 978-0205309443. Langham discusses what he calls the "official style" of bureaucratic writing that he says plagues business writing. Applying his lesson to science writing is useful.

- Joseph Williams, *Style: Lessons in Clarity and Grace*. 11th ed. Longman, 2013. ISBN 978-0321898685. Williams discusses the common conditions that bleed writing of force and meaning and corrects them.

STRUCTURE

Expository Writing E-42c entails the composition of four original and compelling projects. The first (5 pages) entails close, analytical reading of your choice of a scientific text or texts; the second (8-10 pages) is a literature review of a scientific topic of your choice; the third (5 pages) is a proposal and cover document (1 page) for a small-scale research project or a reference document that may build on the literature review; the fourth is a web-based professional portfolio (essay, 5 pages, plus other material) that presents your scientific writing of the term.

Composition of these projects entails rough drafts and exercises in revision and peer review. Before starting a draft, you'll complete a short preliminary exercise to build specific writing skills. These exercises will be posted online so that written ideas can be “published,” that is, exchanged with the entire class. After submitting a rough draft, you’ll confer individually with the instructor to talk pointedly about your writing and revision in preparing a final draft. You’ll also confer with fellow students on your writing in “revision club,” which includes written evaluation of your fellow students’ work.

Our course will function as a seminar. In a seminar, you must be socially engaged in every way. Lectures, if any, are infrequent and you should come to each class prepared to discuss and write on the day's reading and topic. You are expected to offer thoughtful comments on the work of your peers.

All written work should be carefully proofread. Grammar and punctuation will be addressed as an integral part of the writing process, not separately. If you have special concerns with grammar and punctuation, please seek personal help from me and tutors at the Writing Center, which is described below.

Please feel free to talk to me about any difficulties or concerns you may have. And let me know what you think is going well. Remember, your teachers are here to help and I am your teacher.

ONLINE WEB CONFERENCE

Our course meets as an "online web conference" at the appointed moment each week. It uses web software called Blackboard Collaborate v. 12.5 (http://www.blackboard.com/Platforms/Collaborate/Overview.aspx).

To join the class, please follow the weblink to our Collaborate classroom on the web*, a link that will be provided by the Extension School in an email with detailed instructions approximately one week before class begins*. This link and a link to an archive of recorded class sessions will also be available exclusively to enrolled students logging in to our course webpage.

Discussion is at the heart of our online class. As "moderator," the instructor will lead discussion. You must come to each class prepared to discuss and write on the day's reading. Because we are meeting online, you will participate by speaking to the class via microphone and by typing questions and responses into the "chat" box of the software. You may present material on the "whiteboard" of the classroom. We will employ video functions as well. You are also expected to offer thoughtful written and oral comments on the work of your peers.

WRITING INTENSIVE COURSES (mandatory description adapted from the Extension School catalog)

Writing-intensive courses at Harvard Extension, such as "Writing in the Sciences," offer students the opportunity to develop writing skills for a specific academic discipline. These courses feature common elements. Students will

- Develop core writing skills, as defined by the instructor, in the discipline of the course;
- Complete multiple writing assignments of varying lengths, at least two of which must be revised;
- Produce a minimum of 10-12 pages of polished writing, beyond required rough drafts, over the course of the term;
- Meet at least once in individual conference (in person, by phone, or online) with the instructor or TA to discuss writing in progress;
- Receive detailed feedback on their drafts and revisions, on both content and expression.

LEARNING GOALS

Work in this class is aimed at the following goals (work earning a grade above C will *surpass* these goals):

A student should

- Understand writing in different scientific genres;
- Understand and participate in scientific discourse;
- Understand the importance of audience and context;
- Arrange scientific documents, including textual, visual, and quantitative elements, in strategic ways;
- Write with appropriate style;
- Conduct effective research in the scientific literature;
- Follow appropriate grammar, spelling, syntactical, and citation conventions;
- Display confidence and facility with the processes of revision;
- Offer written reflection on her or his writing;
- Offer specific, collaborative, and constructive evaluation to fellow students.

ASSIGNMENTS AND EVALUATION

The evaluation of papers is aligned with the learning goals. You will receive a letter of evaluation for each final draft, which comes on a form that lists specific learning goals tailored for each unit and reports a grade. You will also evaluate fellow students during "revision club." Thus, your work in the course will receive evaluative feedback from the instructor and from fellow students in its draft stages and a grade and evaluation from the instructor in its final form.

- Unit 1. Academic Audience: Analyzing Scientific Discourse 20 percent
- Unit 2. Scientific Audience I: Literature Review 30 percent
- Unit 3. Scientific Audience II: Research Proposal/Reference Document 30 percent
- Unit 4. Professional Audience: Portfolio 10 percent
- Online writing, class participation, Revision Club 10 percent

Letter grades are assigned carefully to written work:

- A and A- indicate excellent writing
- B+, B, and B- indicate good writing
- C+, C, and C- indicate satisfactory writing
- D+, D, and D- indicate poor writing
- E indicates failed writing or missing work

Letter grades have the following values: A=4.0, A-=3.7, B+=3.3, B=3.0, B-=2.7, C+=2.3, C=2.0, C-=1.7. In determining a course grade, each unit's grade value is weighted following the scheme above, and the four values are summed up. The course grade is determined by where this sum falls on the following range: A=3.85-4.0, A-=3.50-3.84, B+=3.15-3.49, B=2.85-3.14, B-=2.50-2.84, C+=2.15-2.49, C=1.85-2.14, C-=1.5-1.84.

Please feel free to talk to me about any difficulties or concerns you may have. And let me know what you think is going well.

BLOGGIES

As you begin to think about each set of readings in each unit and prepare to write an essay, you'll do some of your early thinking in writing. This writing you'll share with the class, extending our in-class discussions and propelling yourself into the writing project.

This preliminary writing will take the form of a required blog entry, or *bloggy*. *The purpose of these bloggies is to give you writing you can place into a rough draft.* Each of our unit assignments will detail what these bloggies should do (under the heading "Bloggy 1," etc.). Post your bloggies by 9 PM ET on the days they're due. Our blog may also serve as a forum for ideas of all sorts, especially those, of whatever nature, pertinent to the class (events or talks or exhibits of interest, for example, or websites, books, or other materials If you have concerns about this technology, please discuss them with the instructor, and, if you desire, the class. Our course blog is only open and visible to students enrolled in the class.

HOW TO USE THE COURSE BLOG

You can link to our blog by going to the course website (https://canvas.harvard.edu/courses/4386). Log into the site with your Harvard ID and PIN. Click

on the "Blog" link, click on "Open in New Tab," click on "+New>Post" in the new page, and type into the large box directly. Enter a title in the small box above. Click "Publish" when done. You can also paste into the message box text created by some other program. Please don't offer your bloggy as an attachment (this requires the extra step of downloading your work for reading). You are always welcome to post to the curse blog questions, remarks, and announcements you think are useful to the class.

Please send your first bloggy, Bloggy 1.1, by Thursday, 3 September at 9 PM. In this first, introductory bloggy, briefly tell us where you're from and why you're interested in writing in the sciences or offer any other introductory thoughts you like. Always offer a good title for your posts (we'll discuss titles during the term, of course).

REVISION CLUB

Revision Club is an essential element of our course. In it, you'll exchange your writing in rough draft form with two other students. You'll read your partners' papers carefully and critically and offer written comments in margins and in a letter that fully articulates your critical assessment. In these comments you'll note specific strengths and suggest specific moments to strengthen. In class, you'll also meet with your two partners to discuss your findings in person.

This kind of rich and direct critical communication may in fact be the most vital element of the course. In it, you'll practice the kind of oral and written exchange that is the hallmark of professional life. Offering constructive, collaborative critique to a fellow professional is a skill to be practiced. To be frank, it is often done poorly; doing it well can distinguish you immediately at the workplace as someone who works well with and can lead others.

POLICIES

- Students will receive comments on rough and final drafts; only final drafts are graded.
- Drafts are due at the beginning of class on their due date, or precisely at the time specified on non-class days. Online writing is due at 9 PM on specified dates.
- Students must submit electronically rough and final drafts of all assignments, meeting all due dates, to pass the course. If drafts and due dates are missed, students are eligible to be excluded from the course and failed.
- Students must participate fully in Revision Club, carefully reading papers, offering marginal comments and letters summarizing their thoughts to their fellow Revision Clubmates, and discussing these matters in class.
- *Good attendance is essential to the course*, which follows a sequence. Students who miss more than two classes without excuse of religious holiday or documented illness may be excluded from class and failed. Tardiness on two occasions by more than ten minutes constitutes an absence. After the first unexcused absence, a student will receive a warning letter from the instructor. Business meetings or business trips or other forms of travel are unexcused absences.

WRITING CENTER

The Extension School has a Writing Center that supports students on campus and on-line. If you're taking a distance education course, you may request a Skype conference or an e-mail conference with a member of the Writing Center staff by sending a message to writing_center@dcemail.harvard.edu. Please see

http://www.extension.harvard.edu/resources/writing-center for full information. The services of the Writing Center are free and highly recommended.

Students are also encouraged to consult the various guides to writing available at the Writing Center website.

ACADEMIC HONESTY

Below is Harvard Extension School's statement on academic honesty, stated in its *Handbook for Students*. It applies to our work.

> Plagiarism is the theft of someone else's ideas and work. Whether a student copies verbatim or simply rephrases the ideas of another without properly acknowledging the source, the theft is the same. A computer program written as part of the student's academic work is, like a paper, expected to be the student's original work and subject to the same standards of representation. In the preparation of work submitted to meet course requirements, whether a draft or final version of a paper, project, assignment, computer program, or take-home examination, students must take great care to distinguish their own ideas and language from information derived from sources. Sources include published primary and secondary materials, the Internet, and information and opinions gained directly from other people. Whenever ideas or facts are derived from a student's reading or research, the sources must be properly cited.

Students are also expected to read and understand the "Avoiding Plagiarism" chapter of the *Harvard Guide to Using Sources* (http://usingsources.fas.harvard.edu).

Useful further information is available at the Extension School's "Plagiarism and the Proper Use of Sources webpage at http://www.extension.harvard.edu/resources/career-academic-resource-center/plagiarism-proper-use-sources. Note the links to two *online tutorials* on source use. Students are expected to complete these tutorials.

Please send an email to the instructor (akbari@fas.harvard.edu), reporting your score, when you have completed the tutorials. Please complete the tutorials by 14 September.

SCHEDULE (may change)

Readings are listed on the day they are first to be discussed. Due dates and times are listed in bold type. Schedules will also be included in each unit's assignment description; these unit schedules supersede this syllabus.

Unit 1. Academic Audience: Analyzing Scientific Discourse

Week 1

Monday, 31 August. Introductions. What makes good writing? What is the relation of language to knowledge? What is the function of discourse in a discipline? What are the genres of writing in the different disciplines? What is scientific discourse? What are scientific genres? How is scientific knowledge served by writing? Orientation to the functions of our online course. Introduction to online research resources. Writing exercise. Syllabus, Unit 1 assignments, questionnaire issued (all three found on course website). Introduction to Unit 1.

Thursday, 3 September. **Questionnaire due**; mail to akbari@fas.harvard.edu. **Bloggy 1.1—first, introductory bloggy—due, 9 PM.**

Monday, 7 September. **Labor Day—no class.**

Week 2

Monday, 14 September. Scientific discourse in action. Close reading. **Choose possible science writing specimens for Unit 1 writing and bring to class. Reading:** *The Chicago Guide to Communicating Science* Chapters 1, 2, 3, 7; Florian Schneider, "How to Do a Discourse Analysis" (online; link in Unit 1 Assignment description); Sample Scientific Papers; *Harvard Guide to Using Sources*: Introduction, Why Use Sources?, Integrating Sources, Citing Sources. **Workshop**: close reading (observe, judge). Supplementary materials (TBA).

Thursday, 17 September. **Bloggy 1.2 Due, 9 PM.**

Week 3

Monday, 21 September. **Unit 1 Rough Draft of Analysis of Scientific Discourse due (upload to course website). Reading:** *The Chicago Guide to Communicating Science* Chapters 4, 12. **Workshop**: student drafts and close reading, use of quotations.

Unit 2. Scientific Audience I: Literature Review

Week 4

Monday, 28 September. **Unit 1 Final Draft of Analysis of Scientific Discourse due (upload to course website).**. Introduction to Unit 2. Close reading: model scientific iterature reviews. Introduction to digital resources and library research. Workshop on citation and source use.

Week 5
Monday, 5 October. **Reading:** Sample Literature Reviews. **From *The Chicago Guide to Communicating Science:*** Chapters 8, 9, 14. ***From Harvard Guide to Using Sources***: Locating Sources, Evaluating Sources, Avoiding Plagiarism. Workshop on assimilating and synthesizing knowledge.

Thursday, 8 October. **Bloggy 2.1 due, 9 PM.**

Monday, 12 October**. Columbus Day—no class.**

Week 6
Monday, 19 October. **Unit 2 Rough Draft 2.1 of Literature Review due.**

Thursday, 22 October. **Unit 2 Rough Draft 2.2 of Literature Review due.**

Week 7
Monday, 26 October**.** Revision Club.

Thursday, 29 October. **Unit 2 Rough Draft 2.3 of Literature Review due**.

Week 8
Monday, 2 November. Revision club.

Unit 3. Scientific Audience II: Research Proposal/Reference Document

Week 9
Monday, 9 November. **Unit 2 Final Draft of Literature Review Due.** Introduction to Unit 3. Workshop on research and data collection. Survey of reference documents.

Week 10
Monday, 16 November. **Reading:** Sample proposals, sample reference documents. **From *The Chicago Guide to Communicating Science:*** Chapters 10, 11, 16.

Thursday, 19 November. **Bloggy 3 due, 9 PM.**

Week 11
Monday, 23 November. **Unit 3 Rough Draft of Research Proposal/Reference Document due**.

Week 12
Monday, 30 November. Revision Club.

Week 13
Monday, 7 December. **Unit 3 Final Draft of Research Proposal/Reference Document due.** Introduction to Unit 4.

Week 14
Monday, 14 December. **From *The Chicago Guide to Communicating Science:*** Chapter 13.
Oral presentations of proposal/reference document.

Unit 4. Professional Audience: Portfolio

Week 15
Monday, 21 December. Last class! **Unit 4 Portfolios due.**