

WRTG 3030: Environmental Health Science, Policy, and Ethics

2017 fall term

Section #020 Mon/Wed 4:30-5:45pm ECST 1B21	Section #033 Tues/Thurs 3:30-4:45pm ECCR 1B08	Section #036 Tues/Thurs 5:00-6:15pm ECCR 1B08
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Instructor: Dr. Lev Szentkirályi (pronounced sěnt-kě-rő-yě or “sent-key-rah-yeē”)

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Office hours: Wednesdays 10am-12pm or by appointment (or via Skype—search for levszentkiralyi.com)

Office: 09 TB-1 (next to Clare Small)

Course website: http://levszentkiralyi.com/teaching/3030_envh

Course Overview and Objectives

This interdisciplinary course teaches conventions of academic research and writing by examining current domestic and global public and environmental health hazards—which challenge students to engage difficult texts in the health sciences, environmental policy, environmental law, and social justice. Some of the issue-areas we will explore include pesticides in foods, Bisphenol A (BPA) in plastics, growth hormones (rGBH) in dairy products and antibiotic resistance, infectious diseases and emerging pandemics, and leaded gasoline emissions and underground storage tanks. Through diverse course readings, independent research, and formative writing assignments, students will critically evaluate contemporary scholarship on these issue-areas, and they will learn to identify, critique, and apply different conventions of research, analysis, and writing that define this interdisciplinary body of literature, as well as the scholarship in their particular majors. Finally, in having students apply lessons of rhetorical analysis learned in the classroom to real-world complex policy problems, this course strives to motivate students to think critically about the role that science should have in creating health policy, the influence of corporate special interests on the decision-making process, and the responsibilities citizens have to protect the public against potential health hazards.

Writing Objectives

This writing course meets two sets of requirements here on the CU-Boulder campus.

The first set consists in the requirements established by the Colorado Commission on Higher Education for all third-level “Communication General Education ‘Guaranteed Transfer’” (CO-3) courses in the state. These CO-3 courses are designed to ensure that students understand “how to summarize, analyze, and synthesize the ideas of others” and “learn more sophisticated ways of communicating knowledge...in the context of a specific discipline” (par. 3). This is achieved by extending “rhetorical knowledge,” “writing processes [and] conventions,” and “comprehension of content knowledge at the advanced level” (par. 6).

The second set consists in the requirements established by the Program for Writing and Rhetoric (PWR), which is the home program for this course. These include your capacities to:

- *develop rhetorical knowledge*—analyzing and making informed choices about purposes, audiences, and context as you read and compose texts.
- *analyze texts in a variety of genres*—understanding how content, style, structure and format vary across a range of reading and writing situations.
- *refine and reflect on your writing process*—using multiple strategies to generate ideas, draft, revise, and edit your writing across a variety of genres.
- *develop information literacy*—making critical choices as you identify a specific research need, locate and evaluate information and sources, and draw connections among your own and others' ideas in your writing.
- *construct effective arguments*—using appropriate reasons and evidence to support your positions while responding to multiple points of view.
- *understand and apply language conventions rhetorically*—including grammar, spelling, punctuation and format. (PWR First Year Committee)

In light of these requirements, our writing course this semester will ask you to:

1. develop rhetorical knowledge by reading and writing a range of academic arguments—which will attend to a variety of rhetorical considerations, including context, audience, purpose, rhetorical appeals, genre- and discipline-specific conventions of writing and research, and so forth—while using effective evidence and providing appropriate analysis.
2. develop an intimate understanding of writing processes and information literacy by drafting, revising, editing, and proofreading your own work; by reading and critiquing the work of others; and by engaging in a number of formative writing assignments using primary and secondary source materials.
3. understand and employ general and discipline-specific conventions and principles of academic writing and clear prose style in your writing, while exploring the potential social benefits and costs of doing so, as well as our obligations to our communities as educated students and writers.
4. reflect on your educational goals and values, and those of others.

To accomplish these goals, you will spend extensive time this semester working alone and in groups. You are also encouraged to meet with me one-on-one to discuss your paper assignments.

Required Textbooks

There are two required text for this course:

- Weston, Anthony. *A Rulebook for Arguments*, 4th ed. (Indianapolis: Hackett Publishing, 2009).
- Okasha, Samir. *Philosophy of Science: A Very Short Introduction*, 2nd ed. (Oxford: OUP, 2016).

All other required readings will be made available on our course webpage:

- https://levszentkiralyi.com/teaching/3030_envh_readings/

University and Course Policies

Attendance: Since we will have several writing and peer-review workshops and other in-class activities, as detailed in the course requirements below, there is a formal attendance policy for this class. Students are permitted (3) unexcused absences without penalty, after which each subsequent unexcused absence will result in a 5% deduction in their attendance grade.

Classroom Etiquette: be respectful of and considerate toward your classmates. I am committed to establishing an atmosphere that fosters open, civil, and constructive lines of communication, and inappropriate or offensive conduct will not be tolerated. *If you feel uncomfortable at any time with any aspect of the class environment, I strongly encourage you to come discuss your concerns with me.*

Disability Accommodations: If you qualify for accommodations because of a disability, please submit a letter to me from Disability Support Services (DSS) in a timely manner so that your needs may be accommodated. DSS requires that disabilities be documented, and can be contacted at 303.492.8671 or at dsinfo@colorado.edu. If you have a temporary medical condition or injury, see Temporary Injuries under Quick Links at Disability Services website (<http://disabilityservices.colorado.edu/>) and discuss your needs with me.

Discrimination: No discrimination or harassment will be tolerated in this class. If you believe you have been discriminated against, you are strongly encouraged to contact the Office of Discrimination and Harassment at 303.492.2127, or the Office of Student Conduct at 303.492.5550. Information about University policies and resources can be found at <http://hr.colorado.edu/dh/>.

Electronics: Students are expected to turn **OFF** all electronic devices when entering the classroom, with the exception of personal computers—which are to be used only for course-related purposes.

- You should regularly check your CU email account for class announcements and information. You should also regularly check our course webpage to confirm regular reading and homework assignments, to view paper assignments, and to view syllabus updates.
- You must bring either paper or electronic copies of each course reading with you to each class—**you will not be permitted to use cell phones to access course material.**

- Computer problems, broken printers, empty toner cartridges, or other technology problems will not excuse you from completing your assigned work on time or from bringing required materials to class.
- Students who must be reminded not to use personal electronics for non-course-related purposes will be prohibited from using electronics in class, and their participation grade will be penalized.

Honor Code: Students are responsible for knowing and adhering to the academic integrity policy of this institution. Violations may include cheating, plagiarism, aiding others in academic dishonesty, deception, fabrication, and etc. All incidents of academic misconduct will be reported to the Honor Code Council (honor@colorado.edu; 303.735.2273). Students found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including, but not limited to, university probation, suspension, or expulsion). Further details can be found at <http://colorado.edu/policies/honor.html>, and at <http://honorcode.colorado.edu>.

Plagiarism: If students have *any* doubt about what constitutes plagiarism, it is their responsibility to ask *before* submitting work as their own.

Plagiarism is the act of using others' words and/or ideas without proper attribution, either intentionally or unintentionally. The *MLA Style Manual* (2nd edition) requires that

[s]cholarly authors generously acknowledge their debts to predecessors by carefully giving credit to each source. Whenever you draw on another's work, you must specify what you borrowed—whether facts, opinions, or quotations—and where you borrowed it from. Using another person's ideas without acknowledging the source constitutes plagiarism (Gibaldi 151).

Intentional plagiarism will be strictly punished: a proven first offense will result in an automatic F for the final assignment grade, while a proven second offense will result in an automatic F for the course. Moreover, depending on the nature of the offense, engaging in plagiarism may result in further disciplinary action by the University. Consult the PWR or Campus Honor Code websites for more info.

Further resources are available at https://levszentkiralyi.com/teaching/student_resources/, including

- Purdue Online Writing Lab: <https://owl.english.purdue.edu/owl/section/2/9/>
- <http://uclibraries.colorado.edu/how/citationstyle.htm>
- <http://honorcode.colorado.edu/student-information>
- <http://colorado.edu/policies/honor.html>
- See also Joseph Gibaldi, *MLA Style Manual and Guide to Scholarly Publishing*, 2nd ed. (New York: Modern Language Association, 1999).

Punctuality: persistent tardiness is unacceptable. With students who consistently arrive to class late, I reserve the right to count two late arrivals to class as one absence.

Religious Observances: Campus policy requires that faculty make every effort to reasonably and fairly accommodate students who have scheduling conflicts because of religious observances. Students who need to reschedule exams or assignments should inform me as soon as possible.

Writing Center: Students should consider utilizing the Writing Center—a campus service offering free one-on-one feedback about academic writing—as a supplement to their learning in this course. (See <http://www.colorado.edu/pwr/writingcenter.html> for more information about the Center or to schedule an appointment.) Note that the Center books up quickly, so plan accordingly.

Written Work and Due Dates: Students must type all writing assignments using 12-point font, 1-inch margins, and a consistent citation style (MLA, APA, or Chicago), and they must submit all assignments to our course dropbox by the assigned dates and times.

- To upload your work, click on our course dropbox, enroll in the class at <http://turnitin.com> using our class number and enrollment key (below), click on the assignment link, and upload your paper.

Section #020 (M/W 4:30pm) Class ID: 16103890 Enrollment Key: 3030-020	Section #033 (T/R 3:30pm) Class ID: 16103907 Enrollment Key: 3030-033	Section #036 (T/R 5:00pm) Class ID: 16103916 Enrollment Key: 3030-036
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- Note that late work will be penalized one full letter grade (10%) for each day that it is late.

Course Requirements

- **Paper 1: Conventions of Research and Writing Executive Summary** (10% of final course grade):
 - students will explore scholarship in their majors—identifying what counts as evidence within their respective fields of study, as well as some universal and discipline-specific conventions of research, analysis, and writing.
 - 3-4 pages in length—single-spaced
 - collaborative project
- **Paper 2: Literature Review for Research Project** (10% of final course grade):
 - students apply lessons on information literacy and demonstrate mastery of relevant literature and contemporary debates relating to their self-chosen research paper topic, as well as demonstrate how their own argument fits into and advances the scholarly conversation
 - 5-7 pages in length—single-spaced
 - students must submit both a rough draft and substantively revised final draft
 - the rough draft will be peer-reviewed
- **Paper 3: Outline of Research Project** (10% of final course grade):
 - students concisely outline the different components of their anticipated or tentative research paper project, in order to neatly organize their thoughts and identify those areas of the paper that need more work than others
 - 3-4 pages in length—single-spaced
 - students must submit both a rough draft and substantively revised final draft
- **Paper 4: Research Project** (35% of final course grade):
 - students write a research paper that develops an academic argument in defense of a thesis or hypothesis related to a subject of their choice—though, one that has preferably a subject in their major—successfully applying principles of good writing, discipline-specific conventions of research and analysis, and general conventions of rhetorical analysis and information literacy
 - 15-18 pages in length
 - students must submit a rough draft, and substantively revised second and final drafts
 - both rough drafts will be peer-reviewed
- **Attendance** (10% of final course grade)
 - This is a discussion-based course in which students are expected to be actively involved in class discussions, workshops, and in-class assignments—making attendance a prerequisite.
 - Students are permitted 3 unexcused absences without penalty. Each further unexcused absences will result in a 5% deduction to your attendance grade.
 - NOTE: a generic slip provided by Wardenburg that notes that a student had an appointment on the day the student missed class will not be accepted as excusing the absence. Students missing class due to illness must provide a note signed by or an email sent from their doctor explaining that the absence from class should be excused.
- **Course Participation** (10% of final course grade)
 - This is a discussion-based course in which students are expected to be actively involved in class discussions, workshops, and in-class assignments.
 - Arriving to class late, arriving unprepared to discuss the readings, neglecting to contribute substantively to our class discussions, demonstrating a lack of engagement, and failing to complete in-class assignments will all result in deductions in your course participation grade.
 - **Examples of behavior that indicates to me your lack of engagement:** not taking notes; using cell phones during class; being generally disengaged (staring off into space, chatting with others, falling asleep, etc.); failing to make an effort to answer questions asked of you.
 - **Examples of behavior that indicates to me you are actively engagement:** taking detailed notes (not just writing down what's provided on the slides); being generally engaged (active listening, making eye contact, responding to comments other students may make, etc.); making an effort to answer questions directly asked of you.

- **Reading Comprehension Quizzes** (15% of final course grade)
 - there will be 12 short (½ -page) in-class writing assignments over the course of the semester, which will test students on specifics from the assigned readings and/or will ask students to apply course material learned earlier in the week.
 - the lowest two quiz grades will be dropped.

Final class grades will be based on the following scale:

≥ 93% = A	87 – 89% = B+	77 – 79% = C+	67 – 69% = D+	< 60% = F
90 – 92% = A-	83 – 86% = B	73 – 76% = C	63 – 66% = D	
	80 – 82% = B-	70 – 72% = C-	60 – 62% = D-	

General Grading Guidelines for Research Paper Assignment:

Further clarifying these general criteria, specific rubrics will be provided for each major writing assignment.

An essay in the “A” Range will feature

- a strong thesis with a clear claim, reasons and evidence, and underlying warrant
- relevant and specific examples drawn from appropriate sources
- consistently clear analysis of reasons and evidence
- consistently appropriate and correct use of citation
- consistently clear and correct use of quotation, summary, and paraphrase
- careful attention to issues of grammar and style (especially sentence boundaries, clarity, coherence, and punctuation)
- meeting the minimum page requirements

An essay in the “B” Range will feature

- a generally good thesis with a clear claim, reasons and evidence, and underlying warrant
- relevant and specific examples drawn from appropriate sources
- generally clear analysis of reasons and evidence
- generally appropriate and correct use of citation
- generally clear and correct use of quotation, summary, and paraphrase
- generally strong attention to issues of grammar and style
- meeting the minimum page requirements

An essay in the “C” Range will feature

- a thesis lacking a clear claim, reasons, evidence, and/or underlying warrant
- poorly chosen and poorly explained examples
- little specific analysis of reasons and evidence (often as a result of a poor thesis)
- minimally appropriate and correct use of appropriate citation styles
- minimally clear and correct use of quotation, summary, and paraphrase
- minimal attention to issues of grammar and style
- failure to meet the minimum page requirements

An essay in the “D” Range will feature

- no real thesis
- weak or no examples
- little or no analysis of reasons and evidence
- generally inappropriate or incorrect use of citation (but without lapsing into plagiarism)
- generally unclear or incorrect use of quotation, summary, and paraphrase
- significant problems with grammar and style
- failure to meet the minimum page requirements

An essay in the “F” Range will feature

- no real thesis
- weak or no examples
- little or no analysis of reasons and evidence
- generally unclear and incorrect use of citation styles (often in ways that lapse into plagiarism)
- generally inappropriate or incorrect use of quotation, summary, and paraphrase
- significant problems with grammar and style
- failure to meet the minimum page requirements

Reading and Assignment Schedule

Note that this schedule is subject to revision

Details about how course readings and assignments satisfy CCHE guidelines are provided throughout.
1: Rhetorical Knowledge, 2: Writing Processes, 3: Writing Conventions, 4: Content Knowledge

ISSUE-AREA 1: LONG-TERM, LOW-LEVEL EXPOSURE TO PESTICIDE RESIDUES IN FOODS

WEEK 1: INTERDISCIPLINARY NATURE OF ENVIRONMENTAL HEALTH RESEARCH

Tuesday, 29 August: Course Introduction

- No reading assigned
- Class activity: “A Question of Environmental Racism in Flint,” *New York Times* (21 Jan 2016)

Thursday, 31 August: Science on Pesticide Exposure

- Boobis et al., “Cumulative Risk Assessment of Pesticide Residues in Food” (2008)¹

¹ Purpose: critically analyze readings; CCHE Goals: 1, 4

WEEK 2: TYPES OF ARGUMENTS AND SCIENTIFIC RESEARCH AS EMPIRICAL

Tuesday, 5 September: Science on Pesticide Exposure ▪ Causal Arguments

- Ames et al., “Dietary Pesticides—99.99% All Natural” (1990)¹
- *Rulebook for Arguments*, Chapter 5²

¹ Purpose: critically analyze readings; CCHE Goals: 1, 4

² Purpose: review types of arguments and their purposes; CCHE Goals: 1, 2, 4

Thursday, 7 September: Science on Pesticide Exposure ▪ Conventions on Scientific Writing

- Lu et al., “Organic Diets Significantly Lower Children's Dietary Exposure to Pesticides” (2006)¹
- Class activity: informal survey of conventions of research and writing in students' majors²

¹ Purpose: critically analyze readings, emphasis on role of counterarguments; CCHE Goals: 1, 4

² Purpose: critically reflect on discipline-specific conventions in one's major; CCHE Goals: 1, 3, 4

WEEK 3: CONVENTIONS OF RESEARCH AND WRITING ACROSS THE DISCIPLINES

Tuesday, 12 September: The Curriculum Vitae and CU Faculty Survey¹

- No reading assigned
- **Students receive directions for Paper 1²**
- Class activity: survey a CU faculty member's CV and publishing history³

¹ Purpose: analyze the CV as a genre and identify leading journals in one's major; CCHE Goals: 1, 4

² Purpose: understand requirements of first major writing assignment; CCHE Goal: 2

³ Purpose: make progress on Paper 1; CCHE Goals: 1, 2, 3, 4

Thursday, 14 September: Policy Governing Pesticide Exposure ▪ Discipline-Specific Conventions

- Percival et al. *Environmental Regulation*, Chapter 3 excerpt on Delaney Clause (2009)—only pp. 283-81
- Wargo, *Our Children's Toxic Legacy*, Chapter 7: Human Ecology of Pesticide Residues excerpt (1998)¹
- Class activity: survey discipline-specific scholarship for conventions of research and writing²

¹ Purpose: critically analyze reading; CCHE Goals: 1, 4

² Purpose: identify common and discipline-specific conventions in one's major; CCHE Goals: 1, 3, 4

Colorado Commission on Higher Education (CCHE) Goals:
1: Rhetorical Knowledge, 2: Writing Processes, 3: Writing Conventions, 4: Content Knowledge

WEEK 4: PEER-REVIEW AND CRITERIA FOR QUALITY CONSTRUCTIVE FEEDBACK

Tuesday, 19 September: Popularization of Science on Pesticide Exposure ▪ Peer-Review Workshop

- *The Blaze*, “[Yes, Pesticides Are In Everything. But You’ll Never Guess the Source](#)” (5 Jul 2017)¹
- *Mother Jones*, “Trump’s EPA Just Greenlighted a Pesticide Known to Damage Kids’ Brains (27 Mar 2017)¹
- Sommers, “Responding to Student Writing” (1982)²
- **Paper 1 draft due—upload to course dropbox before class and bring 2 hard copies to class**
- Class activity: peer-review workshop of Paper 1 rough draft³

¹ Purpose: critically analyze reading, noting popularization of science; CCHE Goals: 1, 4

² Purpose: review how to provide helpful and constructive peer-review feedback; CCHE Goal: 4

³ Purpose: engage in peer-review; CCHE Goal: 2

Thursday, 21 September: Ethics of Pesticide Exposure ▪ Sample Student Writing

- Lehman, “Values, Ethics, and the Use of Synthetic Pesticides in Agriculture” (1993)—only pp. 371-7¹
- Shrader-Frechette, *Taking Action, Saving Lives*, Chapter 4: Human Rights and Duties Not to Harm (2007)—only pp. 113-24, 141-8¹
- Class activity: critique student sample of Paper 1³

¹ Purpose: critically analyze reading; CCHE Goals: 1, 4

³ Purpose: clarify expectations of first major writing assignment; CCHE Goals 2

ISSUE-AREA 2: GROWING PREVALENCE OF INFECTIOUS DISEASES & EMERGING PANDEMICS

WEEK 5: WRITING AS EVIDENCE-BASED AND HOW WE KNOW WHAT WE KNOW

Tuesday, 26 September: Science on Infectious Diseases ▪ Thinking and Reasoning Scientifically

- Jones et al., “Global Trends in Emerging Infectious Diseases” (2008)¹
- Dewey, “Empirical and Scientific Thought” (1933), pp. 190-202²
- **Paper 1 final draft must be uploaded to course dropbox before class—no hard copy due³**

¹ Purpose: critically analyze reading; CCHE Goals: 1, 4

² Purpose: understand processes of induction, deduction, and scientific reasoning; CCHE Goals: 3, 4

³ Purpose: complete first major writing assignment; CCHE Goals: 1, 2, 3, 4

Thursday, 28 September: Science on Infectious Diseases ▪ Drawing Inferences from Observations

- Rice et al., “Malnutrition as an Underlying Cause of Childhood Deaths Associated With Infectious Diseases in Developing Countries” (2000)¹
- *Philosophy of Science*, Chapter 2: Scientific Inference²

¹ Purpose: critically analyze reading; CCHE Goals: 1, 4

² Purpose: understand processes of drawing scientific inferences; CCHE Goals: 3, 4

WEEK 6: WRITING AS EVIDENCE-BASED AND HOW WE KNOW WHAT WE KNOW

Tuesday, 3 October: Policy Governing Infectious Diseases ▪ The Realist Debate

- Aginam, “International Law and Communicable Diseases” (2002)¹
- Gostin et al., “The Law and the Public’s Health: A Study of Infectious Disease Law in the United States” (1999)—only Section 4: Current Status of State Public Health Law¹
- *Philosophy of Science*, Chapter 4: Realism and Anti-Realism²
- **Students receive directions for overarching Paper 4³**
- Class activity: students workshop possible topics of interest for the research project

¹ Purpose: critically analyze reading; CCHE Goals: 1, 4

² Purpose: understand the intuition behind and limitations of truth as correspondence; CCHE Goals: 3, 4

³ Purpose: understand requirements of this course’s overarching writing assignment; CCHE Goal: 2

Colorado Commission on Higher Education (CCHE) Goals:
1: Rhetorical Knowledge, 2: Writing Processes, 3: Writing Conventions, 4: Content Knowledge

WEEK 6 CONTINUED...

Thursday, 5 October: Popularization of Science on Infectious Diseases ▪ Scientific Explanations

- *Breitbart*, “Ebola: Obama’s Latest Failure” (16 Oct. 2014)¹
- *Mother Jones*, “Zika May Be a Threat to the Adult Brain, Too” (21 Sep. 2016)¹
- Colorado Public Radio, “As Colorado’s Climate Changes, Our Collective Health Will Be Connected To It” podcast (26 Jul. 2017)¹
- *Philosophy of Science*, Chapter 3: Explanation in Science²

Optional Newsfeeds

- Limbaugh, [excerpt on U.S. responsibility to alleviate Ebola virus in Liberia](#) (3 Oct. 2014)
- *Colbert Report*, “[A Rare Correction—No Ebola Outbreak in the U.S.](#)” (6 Oct. 2014)
- *Colbert Report*, “[Ebola in New York](#)” (27 Oct. 2014)
- *Daily Show with Jon Stewart*, “[A Million Ways to Die in the U.S.](#)” (2 Oct. 2014)

¹ Purpose: critically analyze reading; CCHE Goals: 1, 4

² Purpose: understand components of conventional explanations of science; CCHE Goals: 1, 3

WEEK 7: WRITING AS CONTEXT DEPENDENT

Tuesday, 10 October: Ethics on Infectious Diseases ▪ Heeding the Rhetorical Situation¹

- Smith et al., “Are There Characteristics of Infectious Diseases That Raise Special Ethical Issues?” (2004)²
- Hardin, “Lifeboat Ethics” (1974)²

¹ Purpose: review rhetorical situation and rhetorical appeals; CCHE Goals: 1, 3, 4

² Purpose: critically analyze reading, emphasis on the role of counterarguments; CCHE Goals: 1, 2, 4

Thursday, 12 October: Writing for Academic Audiences ▪ Generalizations

- Bartholomae, “Inventing the University” excerpt (1985)¹
- *Rulebook for Arguments*, Chapter 2: Generalizations² and Appendix I: Some Common Fallacies¹

¹ Purpose: review rhetorical situation and satisfying conventions of academic writing; CCHE Goals: 1, 3, 4

² Purpose: review types of arguments and their purposes; CCHE Goals: 1, 2, 4

GENERATING AN ORIGINAL RESEARCH PAPER

WEEK 8: STARTING YOUR RESEARCH PROJECT

Tuesday, 17 October: Scientific Writing for Scientific Audiences ▪ Grammar Workshop 1

- Gopen and Swan, “The Science of Scientific Writing” (1990)¹
- Reynolds et al., “Writing-to-Learn in Undergraduate Science Education” (2011)—skim only
- Class activity: grammar and style workshop ¹²

¹ Purpose: understand (problematic) conventions of scientific writing; CCHE Goals: 1, 3, 4

² Purpose: understand notions of concision, parallelism, and precision; CCHE Goal: 3

Thursday, 19 October: Scientific Writing for Scientific Audiences ▪ Academic Argument Revisited

- Sollaci et al., “The IMRAD Structure: A Fifty-Year Survey” (2004)¹
- *Rulebook for Arguments*, Chapter 7: Extended Arguments and Chapter 8: Argumentative Essays²
- Class activity: students brainstorm possible thesis statements for Paper 4 and finalize topic proposals

¹ Purpose: understand conventions of scientific writing; CCHE Goals: 1, 3, 4

² Purpose: review the different sections of the academic argumentative essay; CCHE Goals: 1, 2, 3, 4

Colorado Commission on Higher Education (CCHE) Goals:
1: Rhetorical Knowledge, 2: Writing Processes, 3: Writing Conventions, 4: Content Knowledge

WEEK 9: ORGANIZING YOUR RESEARCH OF SECONDARY SOURCES

Tuesday, 24 October: Information Literacy ▪ “Un-Research” Writing Workshop

- *Rulebook for Arguments*, Chapter 4: Sources¹
- Hosier, “Teaching Information Literacy Through Un-Research” (2015)²
- **Students receive directions for Paper 2**³
- Class activities: review library and online databases¹, pre-research writing exercise²

¹ Purpose: reiterate where to find and how to evaluate academic sources; CCHE Goal: 2

² Purpose: learn value of articulating one’s argument before reviewing literature; CCHE Goals: 1, 2, 3, 4

³ Purpose: understand requirements of the second writing assignment; CCHE Goal: 2

Thursday, 26 October: Literature Reviews v. Annotated Bibliographies ▪ Grammar Workshop 2

- Knopf, “Doing a Literature Review” (2006)¹
- Boote and Beile, “Scholars Before Researchers” (2005)¹
- Class activity: grammar and style workshop 2²

¹ Purpose: understand elements of literature reviews and how to synthesize research; CCHE Goals: 2, 3, 4

² Purpose: review summary, paraphrase, quotation, citation, and source information; CCHE Goal: 3

ISSUE-AREA 3: ROLE OF SCIENCE IN ENVIRONMENTAL HEALTH POLICY DECISIONS

WEEK 10: CORPORATE SPECIAL INTERESTS AND THE REVISION PROCESS

Tuesday, 31 October: Political Economy of Environmental Health Policy

- Dauvergne, *Shadows of Consumption*, Chapter 8: Lead Must Go (2010)¹
- Castleman and Ziem, “Corporate Influence on Threshold Limit Values” excerpt (1988)¹
- **Class activity: writing workshop and conferences—ATTENDANCE IS REQUIRED**²

¹ Purpose: critically analyze readings; CCHE Goals: 1, 4

² Purpose: discuss working draft and make progress on Paper 2; CCHE Goals: 1, 2, 3, 4

Thursday, 2 November: Revision Process Revisited ▪ Peer-Review Workshop

- Meyer and Smith, *The Practical Tutor*, Chapter 2: Engaging in Dialogue (1987)¹
- Sommers, “Revision Strategies of Student Writers and Experienced Adult Writers” (1980)¹
- **Paper 2 draft due—upload to course dropbox before class and bring 2 hard copies to class**
- Class activity: peer-review workshop of Paper 2³

¹ Purpose: understand that writing is a cyclical and critically self-reflective process; CCHE Goals: 2, 4

² Purpose: make progress on Paper 2; CCHE Goals: 1, 3

³ Purpose: engage in peer review; CCHE Goal: 2

WEEK 11: INDUSTRY-DRIVEN SCIENCE AND SCIENCE AS IMPARTIAL?

Tuesday, 7 November: “Privatized” v. Objective Science ▪ Writing Workshop

- Shrader-Frechette, *Taking Action, Saving Lives*, Chapter 3: Private Science, Public Inquiry (2007)—only pp. 91–112¹
- Pielke, “When Scientists Politicize Science” (2006)¹
- Class activity: writing workshop²

¹ Purpose: critically analyze reading; CCHE Goals: 1, 4

² Purpose: make progress on Paper 2; CCHE Goals: 1, 3

Colorado Commission on Higher Education (CCHE) Goals:
1: Rhetorical Knowledge, 2: Writing Processes, 3: Writing Conventions, 4: Content Knowledge

WEEK 11 CONTINUED...

Thursday, 9 November: Assessing Environmental Risk and Limits of Science

- Wargo, *Our Children's Toxic Legacy*, Chapter 10: Simplification of Exposure and Risk (1998)¹
- Granor, "Public Health Research and Uncertainty (1994)—only pp. 169-79¹

¹ Purpose: critically analyze reading; CCHE Goals: 1, 4

WEEK 12: THE PUBLIC'S ROLE AND OUTLINING THE RESEARCH PAPER

Tuesday, 14 November: Public Perceptions of Risk ▪ Writing Workshop

- Sunstein, *Laws of Fear: Beyond the Precautionary Principle*, Chapter 4: Fear As Wildfire (2005)¹
- Paper 2 **final draft must be uploaded to course dropbox before class—no hard copy due**²
- Students receive directions for Paper 3³
- Class activity: drawing on their literature reviews, students begin writing detailed paper outlines⁴

¹ Purpose: critically analyze reading; CCHE Goals: 1, 4

² Purpose: complete second writing assignment; CCHE Goals: 1, 2, 3, 4

³ Purpose: understand requirements of the third writing assignment; CCHE Goal: 2

⁴ Purpose: begin organizing the course's overarching research paper; CCHE Goals: 2, 4

Thursday, 16 November: Responsibilities of the Public Citizen

- *Philosophy of Science*, Chapter 7: Science and Its Critics¹
- Shrader-Frechette, *Taking Action, Saving Lives*, Chapter 6: Where We Go From Here (2007)—only pp. 197-207¹

¹ Purpose: critically analyze reading; CCHE Goals: 1, 3, 4

WEEK 13: FALL BREAK

Monday, 20 November and Wednesday, 22 November

ISSUE-AREA 4: ANTIBIOTIC RESISTANCE

WEEK 14: EMERGING PANDEMICS REVISITED AND DRAFTING THE RESEARCH PAPER

Tuesday, 28 November: Science on Antibiotic Resistance and its Popularization

- Batt et al., "Evaluating the Vulnerability of Surface Waters to Antibiotic Contamination" (2006)¹
- Lamont-Doherty Earth Observatory, "Antibiotic-Resistant Bacteria Widespread in Hudson River, Study Says" (17 Jul. 2013)¹

¹ Purpose: critically analyze reading; CCHE Goals: 1, 4

Thursday, 30 November: Science on Antibiotic Resistance and its Popularization

- Matthew et al., "Antibiotic Resistance in Bacteria Associated with Food Animals" (2007)—only 122-8¹
- BBC, "How We Can Stop Antibiotic Resistance" (8 Jun. 2017)¹
- U.S. Geological Survey, "Are Pharmaceuticals in Your Watershed?" (10 Jan. 2017)¹
- Paper 3 **final draft must be uploaded to course dropbox before class—no hard copy due**²
- Class activity: writing workshop and conferences—ATTENDANCE IS REQUIRED²

¹ Purpose: critically analyze readings; CCHE Goals: 1, 4

² Purpose: complete third major writing assignment; CCHE Goals: 1, 2, 3, 4

³ Purpose: discuss working draft and make progress on Paper 4; CCHE Goals: 1, 2, 3, 4

Colorado Commission on Higher Education (CCHE) Goals:
1: Rhetorical Knowledge, 2: Writing Processes, 3: Writing Conventions, 4: Content Knowledge

WEEK 15: RESPONDING TO ANTIBIOTIC RESISTANCE AND REVISING THE RESEARCH PAPER

Tuesday, 5 December: Ethics on Antibiotic Resistance

- Littmann, "Antibiotic Resistance; An Ethical Challenge" (2015)¹
- Class activity: explore the normative implications of one's research project²

¹ Purpose: critically analyze readings; CCHE Goals: 1, 4

² Purpose: reiterate that empirical research is grounded in value judgments; CCHE Goals: 1, 4

Thursday, 7 December: Peer-Review Workshop

- No readings assigned
- Paper 4 rough draft must be uploaded to course dropbox before class, bring one hard copy to class—this version will be graded for completeness
- Class activity: peer-review workshop of working draft of essay 3²

¹ Purpose: engage in peer review; CCHE Goals: 1, 2, 4

WEEK 16: ETHICAL ASPECTS OF WRITING AND FINALIZING THE RESEARCH PAPER

Tuesday, 12 December: Knowledge, Power, and Accountability—Our Duties as Educated Citizens

- President Kennedy, "[Responsibilities of Education Citizens](#)" (18 May 1963)¹
- Plato, *The Republic*, Book VII excerpt on the "Allegory of the Cave" (1987 [380 BCE])¹
- Paper 4 revised draft must be uploaded to course dropbox before class, bring one hard copy to class—this version will not be graded
- Class activity: second peer-review workshop of working draft of research paper²

¹ Purpose: critically analyze reading; CCHE Goals: 1, 4

² Purpose: engage in peer review; CCHE Goals: 1, 2, 4

Thursday, 14 December: Knowledge, Power, and Accountability—Moral Duties of Scientists

- Haerlin and Parr, "How To Restore Public Trust in Science" (1999)¹
- Bird, "Socially Responsible Science Is More than 'Good Science'," (2014)¹
- Pain, "The Social Responsibilities of Scientists" (16 Feb. 2013)¹
- Students must bring one hard copy of *only* the conclusion of their research paper
- Class activity: further explore the implications of one's research project and revise one's conclusion²

¹ Purpose: critically analyze reading; CCHE Goals: 1, 4

² Purpose: consider broader implications of our writing and responsibilities as writers; CCHE Goals: 1, 4

FINALS WEEK

No final exam is scheduled—our class does not meet during finals week

Paper 4 final draft must be uploaded to course dropbox before allotted exam time (see below)—no hard copy required¹

Section #020 (M/W 4:30pm)
Mon., Dec. 18th at 7:30pm

Section #033 (T/R 3:30pm)
Wed., Dec. 20th at 4:30pm

Section #036 (T/R 5:00pm)
Tues., Dec. 19th at 7:30pm

¹ Purpose: complete fourth writing assignment; CCHE Goals: 1, 2, 3, 4