WRI 116: Writing in the Natural Sciences
Section 001: M - W 12:00-1:50pm
Section 006: T - R 9:30-11:20am

COB 266 & Online @ UCM CROPS

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COURSE DESCRIPTION

Scientific discourse is a highly specialized means of communicating complex, often technical information. The Natural Sciences is an inclusive field that spans issues related to biology, medicine, epidemiology, psychiatry, nutrition, genetics, technology, chemistry, engineering, and earth science, to name but a few. Some variation occurs across disciplines of the natural sciences, and this discourse is typically research-based and intended for publication in scholarly journals or for presentation at academic conferences. Its written format can include abstracts, research reviews, project proposals, technical reports, press releases and journal articles, each requiring a thorough understanding of stylistic and explanatory conventions within a discipline.

This course provides intensive practice in the presentation of scientific subject matter in research and public policy. We will consider the range of audiences to which scientific communities respond, and explore respective variations in substance, style, focus, arrangement, logic, and rhetoric. Above all, we will explore means of communicating and applying specialized knowledge to a wider public. Thus, we will (1) identify the rhetorical principles and conventions of scientific writing; (2) consider representative texts from the field that represent a variety of styles and communities; (3) explore the rhetorical challenges that scientists face when communicating among themselves and with the public; and (4) practice common research reporting paradigms.

STUDENT LEARNING OUTCOMES

Students will practice and refine their capacity, either through in-class interactions or online activities, to:

- synthesize and express complex ideas
- represent technical information in clear oral and written presentations
- understand scientific problems in current and historical contexts
- revise writing by incorporating relevant advice for improvements
- collaborate successfully on group tasks and class projects
- demonstrate information literacy and be able to work with evidence
- explore, articulate and apply scientific interests from college coursework

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GRADES

Individual Assignments	(60%)	(600 points)
Research Journal*	05%	50
Personal Statement & CV/Resume	10%	100
Profile of a Research Community	10%	100
Technical Explanation	10%	100
Digital Portfolio*	10%	100
Discussion/Participation*	15%	150

Collaborative Assignments	(40%)	(400 points)
Research Review	15%	150
Annotated Bibliography*	05%	50
Collaborative Prospectus*	10%	100
Oral Presentations	10%	100

*These assignments will have a heavy online and/or electronic component.

CLASSROOM

Our class meets in-person twice a week, but many of our class assignments and learning will also occur online via our course UCM CROPS website. That means that we have extended our classroom to include the digital UCM CROPS site. All aspects of the in-person and online learning for WRI 116 are designed to meet the previously specified student learning outcomes. Thus, you cannot neglect either the face-to-face classroom or the online classroom. You will find that I have crafted the individual and group assignments to take advantage of the in-person and online formats. These activities are not necessarily mutually exclusive, for example peer review may be done in an online format to allow time to reflect and offer complete feedback. That same peer review work may also carry over into the classroom to facilitate in-person commentary and discussion.

It is common for scientists to communicate and collaborate across electronic formats. The important stages of science writing (research, revision, publication, and interaction of ideas) are all digital and online, to varying degrees. It is incumbent on the future generation of scientists (i.e., *you*) to know how to navigate effectively through digital and hardcopy formats.

There are some activities, such as collecting research, that are most amenable to an online format. Other activities, like oral presentations, are best accomplished live and in-person. Through the innovative classroom model I have designed for you, we are able to get the 'best of both worlds' and incorporate the online classroom with our traditional classroom setting.

In respecting each other's opinions, we will cultivate a classroom environment that fosters communal learning. Accordingly, please turn off your cell phones, keep off the Internet (unless instructed otherwise), stay focused on class discussions and activities, and recognize that your peers are also your partners in this learning community. You are required to bring a copy of the assigned reading

that you have annotated for each class. If you choose to use a digital copy, bring your laptop and make sure that you have already annotated the reading.

CLASS PARTICIPATION

Please come to class prepared to share your ideas. Be assured that no question is necessarily a bad one, and that we need to ask questions to learn. Because this course subscribes to a workshop format, you cannot satisfy its requirements unless you attend regularly, are on time, and meet online participation requirements. Your contributions shape your and other's learning, so participation is 15% of your final grade. To this end, I will keep track of attendance, and you will lose participation points for each absence that exceeds the allowable **four unexcused absences**. Simply telling me that you were sick does not mean an absence was excused (only serious injury/hospitalization or jury duty can be considered excused absences). You are required to attend on time, in person, two days a week, and attend to all of the assigned online activities each week by the deadline. When you come to class, you must be present and participating to receive attendance credit (that means pay attention and do not distract your classmates). If you miss a class, it is your responsibility on your own time to find out what you've missed. It is especially important that you attend class for Workshop days (which will sometimes occur online), since your writing partner(s) will be depending on your feedback (on the quality of which you will also be graded).

Class participation will also entail peer review, computing exercises, as well as virtual participation on our course site via UCM CROPS (see https://ucmcrops.ucmerced.edu/portal).

Online Class Participation

You are probably wondering how you "attend" online class. When I assign an online Forum response, you are expected to spend 1 hour doing this class activity. Keep in mind that this is in addition to the 2 hours of prep work for each hour of class. So, for each online class activity that I assign, you can expect to do 3 hours of class work.

There are three important things to remember each time you attend class online. **First,** there are still important deadlines that must be adhered to. I will have regularly scheduled online Forums for our class that will be due by a given deadline. You should not wait until 11:57pm on the night it is due to try and post your participation or other assignments. Every online post is time-stamped and no late assignments can be accepted. I will be firm about this deadline and so if you submit it at 12:04am it is late and will not count (if it is a participation post, you will earn 0 points, but for later papers I deduct 10% for each day late).

Second, you need to **read and respond** substantively to online class Forums. The main way that you demonstrate attendance in an online class is to make posts and interact with your classmates online in the appropriate forums. A substantive response is typically around 100-200 words.

Lastly, the nature of your online participation is also important. You must be participating in the right amounts and ways so that your contributions to online discussions are building on what has already been said and contributing something new to the discussion. It is not enough to say "I agree" or "I do not think that is true". You need to use the conventions of written English (including spell

checking), a respectful tone, and be specific and substantive in your posts. The quality of your online participation, then, is just as important as the number of posts you make. More details about specific online assignments are provided in the Appendix.

INSTRUCTOR AVAILABILITY

There are three primary ways to contact me with questions regarding your coursework or assignments: (1) in-person during class, (2) in-person during my office hours, and (3) in the online Forum "Questions" thread. Generally, if you have a question about an assignment, your peers will also benefit from the answer to your question. I will usually respond to questions sent to the Forum within 48 hours of your posting. You should start a new thread within the "Questions" Forum for each new question.

If you have questions regarding your personal grade or other private matters regarding your coursework, you should contact me in-person during office hours or online via email to my personal email account: eolson@ucmerced.edu. I will make every effort to respond to emails within 48 hours of receipt. When sending emails, be sure to use a formal format including: appropriate subject, proper salutation, complete sentences, and conventional English.

ACADEMIC INTEGRITY

Plagiarism is an issue that is as complicated as linguistic expression is nuanced. For our purposes, plagiarism entails representing another's work as your own. Note that plagiarism includes:

- submitting work that is done in part by someone else
- paraphrasing or summarizing any source without referencing it
- copying any source without using quotation marks or block indentation

In sum, if you submit your own work with all outside sources or ideas properly documented, you will have maintained academic honesty. If you have any questions about academic honesty, please feel encouraged to ask me or to consult www.library.ucla.edu/bruinsuccess, an interactive guide to avoiding plagiarism concerns. During the first week of class, we will discuss UC Merced's Academic Honesty Policy.

TIME MANAGEMENT

Late work is not accepted more than four days past the due date; 10% of the grade is deducted for each day it is late. Class participation and discussion cannot be made up and zero points are earned for late participation or discussion posts.

For each hour of class, you should anticipate doing at least two hours of "homework." Writing and thinking are processes, so dedicate some time each day to this course. Avoid procrastination. Although we will cover some study skills in class, ask your instructor about good scholarly habits.

WRITING RESOURCES

WRI 116: Writing in the Natural Sciences
Section 001: M - W 12:00-1:50pm
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If you would like further help with your writing—whether you're experiencing difficulties or polishing up an essay—sign up for free consultations at the Student Advising and Learning Center (SALC) in Kolligian Library 172 (visit the center online at http://learning.ucmerced.edu). We also encourage you to come to office hours with any questions you have about assignments, to get feedback on your writing, or to discuss your progress in the course. If you cannot attend office hours, we can schedule an appointment for another time.

MATERIALS (you must have a copy of the reading with you in class)

1. Textbooks
   Weiner, Jonathon. *Time, Love, Memory* (2000)
   Penrose, Ann and Steven Katz, eds. *Writing in the Sciences* (2010)
2. Online Readings (as assigned and posted to UCM CROPS)
3. A comprehensive dictionary and thesaurus

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COURSE UNITS (and Key Assignments)

Introduction Weeks 1-2: Introductions and Personal Statement Project
- Personal Statement & CV

Scientific Literacy Weeks 3-4: Scientific Literacy
- Profile of a Scientific/Research Community

Communication Weeks 5-8: Technical Explanation to a Lay Audience (TELA)
- TELA
- Oral Presentation (individual)

Professional Ethics Weeks 9-10: The Research Review Process
- Research Review

Collaboration Weeks 11-16: The Research Review and Presentation of Findings
- Collaboration Contract
- Collaborative Prospectus
- Oral Presentation (Group)

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TENTATIVE CLASS SCHEDULE
SUBJECT TO CHANGE ON SHORT NOTICE!

Introduction

Weekly Deliverables: Week 1 (August 23-28)
Classes Start Tuesday, No Monday Classes

DAY	Topic	Reading For Class (additional readings TBA)	Assignments Due
1	*Introductions*	Syllabus. Provided in-class.	
2	*Introductions*	Syllabus. Provided in-class.	

Weekly Deliverables: Week 2 (August 30 – September 4)

DAY	Topic	Reading For Class (additional readings TBA)	Assignments Due
1	Workshop	Resumes. In-class skills activity and syllabus quiz.	Resume
2	Culture of Science	"Science as a Social Enterprise" (*WS* 3-22)	Draft of Personal Statement Due

Scientific Literacy

Weekly Deliverables: Week 3 (September 6 – 11)
Labor Day Holiday – No Class Day #1

DAY	Topic	Reading For Class (additional readings TBA)	Assignments Due
1	Scientific Communities	RJ #1: Profile Scientific Community Part 1	Personal Statement & Resume Due
2	Library Tour	Scientific Communities	DQ #1: Communication in Science

Weekly Deliverables: Week 4 (September 13 – 18)

DAY	Topic	Reading For Class (additional readings TBA)	Assignments Due
1	Scientific Literacy	Group work, In-Class RJ #2 RJ #3: Sample Journals for TELA	
2	Scientific Literacy	Daniel Dennett "Show Me the Science"	

Communication

Weekly Deliverables: Week 5 (September 20 – 25)

DAY	Topic	Reading For Class (additional readings TBA)	Assignments Due
1		Sampson "Evoliteracy"	
2	Science, Technology and the Public	"Communicating with Public Audiences" (WS 198-222) Assign TELA.	Profile of a Scientific Community Due

WRI 116: Writing in the Natural Sciences
Section 001: M - W 12:00-1:50pm
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COB 266 & Online @ UCM CROPS

Weekly Deliverables: Week 6 (September 27 – October 2)

DAY	Topic	Reading For Class (additional readings TBA)	Assignments Due
1	Presentation Essentials	Josh Schollmeyer "Lights, Camera, Armageddon"	DQ #2: Collaboration & Group Work
2		"New *Pfiesteria* toxin identified," (WS 320-321)	DQ #3: Reviewing Research Proposals

Weekly Deliverables: Week 7 (October 4 – 9)

DAY	Topic	Reading For Class (additional readings TBA)	Assignments Due
1		Dress Rehearsal of TELA Oral Presentations	Oral presentation draft
2	Benzer	**Read TLM 1-32**	

Weekly Deliverables: Week 8 (October 11 – 16)

DAY	Topic	Reading For Class (additional readings TBA)	Assignments Due
1	*Student Presentations*	Final TELA oral presentations. **Read TLM 33-72**	
2	*Student Presentations*	Final TELA oral presentations.	Submit final draft of TELA

Professional Ethics

Weekly Deliverables: Week 9 (October 18 – 23)

DAY	Topic	Reading For Class (additional readings TBA)	Assignments Due
1	Sample Research Case	"The Ulcer Bug" (*WS* 229-265) Assign Research Review.	
2	Scientific Communication	Jessica Sachs "Are Antibiotics Killing Us?" (BASN 210-218)	DQ #4: Technology & Communicating Science Information

Weekly Deliverables: Week 10 (October 25 – 30)

DAY	Topic	Reading For Class (additional readings TBA)	Assignments Due
1	Research Review Process	Genre of the Review Article" (WS 130-148)	
2	Collaboration	**Read TLM 73-127**"	RJ #5: Group Collaboration Contract

WRI 116: Writing in the Natural Sciences
Section 001: M - W 12:00-1:50pm
Section 006: T - R 9:30-11:20am

COB 266 & Online @ UCM CROPS

Collaboration

Weekly Deliverables: Week 11 (November 1 – 6)

DAY	Topic	Reading For Class (additional readings TBA)	Assignments Due
1		Read TLM 128-166	
2	Research Review, Continued	"Reading Previous Research, Identifying Trends and Patterns" (WS 90-94) Organizing the Review, Citing Sources" (WS 140-144)	Annotated Bibliography Draft

Weekly Deliverables: Week 12 (November 8 – 13)

Veteran's Day Holiday – No Class on Thursday!

DAY	Topic	Reading For Class (additional readings TBA)	Assignments Due
1	Ethics in Research	""Considering Ethics in Scientific Communication" (WS 203-28) Read TLM 167-186	Synthesis Outline Draft
2		DQ #6: Ohio University Academic Dishonesty	

Weekly Deliverables: Week 13 (November 15 – 20)

DAY	Topic	Reading For Class (additional readings TBA)	Assignments Due
1		Read TLM 187-211	Draft Research Review
2	Academic Conferences	"Preparing Conference Presentations" (WS 149-171) Workshop Collaborative Prospectus	

Weekly Deliverables: Week 14 (November 22 – 27)

Thanksgiving Holiday – No class on Wednesday or Thursday!

DAY	Topic	Reading For Class (additional readings TBA)	Assignments Due
1		Read TLM 212-239	Research Review Final
2	Collaboration	Collaborative Prospectus Workshops	DQ #7: Scientists Communicating to Public

Weekly Deliverables: Week 15 (November 29 – December 4)

DAY	Topic	Reading For Class (additional readings TBA)	Assignments Due
1		Collaborative Oral Presentations	
2		Collaborative Oral Presentations	

Weekly Deliverables: Week 16 (December 6 – 11)

Last Day of Classes – Wednesday. No Thursday class!

DAY	Topic	Reading For Class (additional readings TBA)	Assignments Due
1	Final quiz TLM	Turn in ALL final work and Portfolio!	Submit Digital

WRI 116: Writing in the Natural Sciences
Section 001: M - W 12:00-1:50pm
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		Read TLM 240 - End!	Portfolio
2		***No class. Just submit final group project!***	Submit the Collaborative Prospectus

DQ: Discussion Question
RJ: Research Journal

Reminder: You must bring an annotated copy of all assignments and readings to class on the day they are assigned.

UCM CROPS QUICK GUIDE

Course Assignment or Activity	**UCM CROPS Page**
Course grades	Gradebook
Online Discussion & Participation	Forums
Research Journal	Blogger
Digital Portfolio Submission	Assignments
Questions for Peers (ungraded workspace)	Chat
Questions Regarding Coursework (for all)	Questions (in Forums)
Assignment instructions	Assignments
Feedback from Instructor on Submitted Assignments	Assignments
Syllabus	Resources
Worksheets	Resources
Additional Readings	Resources

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APPENDIX

Online Assignments

There are two primary types of online assignments that will be required of you in successfully completing this course: Research Journal and Forum Discussion. There will be other online components of this class, but these two assignments will be required on a regular basis.

Research Journal

Throughout the course, you will have regularly assigned Research Journal activities. Each student will be responsible for creating a blog in "Blogger" of our CROPS page. Within that blog, you will each have to maintain your individual Research Journal. Your Research Journal will be where you post your weekly data collection and respond specifically to my prompts. Throughout the course, we will discuss different levels of research and you will be given a Research Journal task that you need to complete by the designated deadline. Your Research Journal is your individual responsibility, and you can see what others in your research group are working on for the sake of collaboration and sharing feedback. You will need to share your blog with me and your group-mates. Do not complete your Research Journal as a group – you need to complete your own research.

Discussion & Participation

On a regular basis, I will post a discussion question in the Forum based on the prior week's readings and/or in-class activities. You are responsible for posting your response to the discussion question (DQ) and including appropriate citations for any source material in your answer. **Your DQ answer will generally range between 150-300 words and should use the conventions of written English**.

In addition to posting your own answer to the DQ, you will also need to respond to at least two of your peers' responses. You should always quote the thread you are responding to and make sure each of your posts is clear and written using proper conventions of English. It is important that your response does not just repeat what has already been said – you need to build to the discussion by providing an example or elaborating with additional information. **A typical participation response will be around 100-200 words.**

Though you may go back and reread previous discussions, your discussion and participation credit will only count for the designated time period for each assigned DQ. This means that you cannot go back to a previous discussion and post responses to classmates there to make-up participation credit.

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