

## Course Description & Objectives

*Scientific Writing and Communication* is a course designed for students majoring in the sciences. This course prepares students for the communication conventions of their respective fields, emphasizing writing, presenting, composing, and visually designing scientific research and information. Encompassed in this broad goal are pointed emphases in writing style, rhetorical conventions, IMRaD (Introduction, Methods, Results, Discussion) format, visualizing data, document design, and digital technologies.

The goals and objectives of this course are centered in preparing students of the sciences to understand the organization, structure, politics, trends, conventions, and ethical standards of their field. Ultimately, students will learn the role that writing and communication plays in each of these areas. Specifically, by the end of the semester, students should be competent in the following:

- Understanding the publication and communication hierarchies, protocols, and common procedures in the sciences
- Writing proposals and scientific manuscripts using scientific writing conventions
- Utilizing effective rhetorical strategies (including tense shifts, rebuttals, qualifiers, level of detail, etc.) to communicate scientific ideas
- Implementing accurate and ethical citation practices
- Designing information visually in the forms of tables, charts, graphs, and figures for use in reports, proposals, and presentations
- Presenting scientific information orally with the assistance of posters and digital technologies

## Required Materials

### *Textbook\**

Penrose, Ann M. and Steven B. Katz. *Writing in the Sciences: Exploring Conventions of Scientific Discourse*, 3<sup>rd</sup> ed. New York, NY: Longman, 2010. Print.

**\*NOTE:** Be sure that you purchase the **third** edition of this book. This edition includes sample scientific articles not in other editions.

### *Classroom Materials*

Please bring the following to each class:

- Textbook and any supplemental readings
- Laptop with MS Word and internet access
- College-rule notebook
- Black or blue ink pen

## Assignments

All assignments throughout the semester will have a detailed assignment description and scoring standard. Students will be expected to closely adhere to these assignment descriptions. A brief outline of the assignments includes the following:

### *Daily Dose of Science (25 points)*

On an assigned date, students will take turns presenting scientific news to the class. As a practice in rhetorical analysis, students will orally explain how the scientific research is *communicated*. The analysis will identify the communicator's target audience, ethical choices, communication medium, and alternative arguments or rebuttals.

### *Grammar Spotlight (25 points)*

On an assigned date throughout the semester, students will take turns spotlighting grammar, mechanical, and punctuation problems common in college writing. To do this, they will research the grammatical rule and present to the class good and bad examples.

### *Field Map (100 points)*

This assignment requires students to do a thorough investigation of a scientific field, demonstrating knowledge of some of the key topics under research, the most prominent journals and impact factors, important people, industries, and gatekeeper organizations. Students then present this information in a digital, multimodal presentation using contemporary presentation technologies.

### *Manuscript (200 points)*

Broken down into several parts, this assignment will require students to put together a complete manuscript *as if* submitting for publication. Completed manuscript will include a title, abstract, acknowledgements, introduction, literature review, research methods, results, discussion, and references section. The Manuscript assignment requires students to have a thorough understanding of library research methods and technologies and requires the visualization of data using graphs, and figures.

### *Conference Proposal (50 points)*

In traditional conference proposal format, students will write a short abstract that proposes their research and their method(s) of presentation as if presenting at an actual conference.

### *Poster & Presentation (100 points)*

In preparation for visually presenting data at a conference or convention, students will redesign their manuscript to fit in poster format. Poster will be required to follow traditional scientific paper guidelines as well as exhibit effective document design techniques. Students will then present their posters as if in a poster session at a conference, scored by a judge.

### *Digital Remix (150 points)*

Using digital technologies, students will locate a scientific argument in print and remix it as a video, website, animation, slideshow, etc. Students will have a specific audience in mind and, in a short essay, will address the decisions they made to rhetorically persuade or inform their audience about this scientific topic.

***Popular Science Journalism Article (100 points)*** As practice for writing scientific information to lay audiences, students will evaluate a scientific journal article and re-write it for the general public, as if in a popular magazine or newspaper.

### *Final Exam (150 points)*

A final exam will be administered at the conclusion of the semester, covering material from the textbook, lectures, in class activities, and supplemental readings.

### ***Attendance & Participation\* (100 points)***

Because of the participatory nature of this course, and because improved writing comes with practice and frequent feedback, attendance is required. 10% of students' grades will reflect their coming to class and willingness to participate. \*NOTE: See attendance policies under ***Policies*** section of this syllabus.

## Grades

Grades will be assigned based on an average percentage of course assignments. There will be no curves. Grades will be rounded to the nearest percentage. For example, a student with 89.5% at the end of the semester will receive an 'A' for the course. But a student with 89.4% will receive a 'B.'

Assignment	Point Value	Percentage
Daily Dose of Science	50 points	5% of overall grade
Grammar Spotlight	50 points	5% of overall grade
Field Map	100 points	10% of overall grade
Manuscript	200 points	20% of overall grade
Conference Proposal	50 points	5% of overall grade
Poster & Presentation	100 points	10% of overall grade
Digital Remix	100 points	10% of overall grade
Science Journalism Article	100 points	10% of overall grade
Final Exam	150 points	15% of overall grade
Attendance & Participation	100 points	10% of overall grade
<b>Total:</b>	<b>1000 points</b>	
<b>Grading Scale: A 1000 – 900    B 890 – 800    C 790 – 700    D 690 – 600    F 590 – 0</b>		

## Course Proceedings & Expectations

Like in many writing classes, many in-class exercises and discussions will frame the students' understanding of the course material. While the textbook is a valuable resource, learning will come through practice, trial, and error of the material discussed in the textbook, supplemented with practical writing tasks in class. Thus, it is expected that students keep up with the reading, attend class, and participate in the class to stay abreast with the course material. As such, my grading rubric for assignments references both the text-book and lectures. Likewise, material for the final exam comes from the textbook, lectures, and in-class exercises.

## BlackBoard

The syllabus, class notes, schedule, and assignments can be found under the “**Information**” link. Assignment descriptions, supplemental materials, and the places to turn in assignments can be found under the “**Content**” link. We will be using BlackBoard as the medium to turn in most assignments. When an assignment is due, it will need to be uploaded on BlackBoard by the due date (for example, if an assignment is due on July 12, it needs to be uploaded by 11:59pm on July 12). If it is uploaded past the due date, then it is late and will carry a late penalty. Please **DO NOT** upload the assignment and then email it to me. Just place your document on BlackBoard.

## Saving Work

Please save all written assignments in Microsoft Word file formats (.docx). When you upload an assignment to BlackBoard, please save the file as: **projectname\_yourlastname.docx** (for example: Manuscript\_Newbold.docx). All the assignments need to be in one file, not several.

**Tests** The final exam will be taken online. On the day of the test, you will need to go to “**Content**” on BlackBoard and there will be a test that you can click. The test will appear only on the test day, as it is set by a timer. Once you open the test, you will be able to read and answer the questions. BlackBoard will grade your test upon completion and report your score. **You are not allowed to use any notes, books, or other people as resources for these tests.** You have a time limit on this test that will be explained in class.

## Policies

**Attendance & Participation:** Attendance will be taken in class. Because we only meet officially in class 28 times during the semester, it is important that students can be in class as often as possible. However, I allow students to miss up to three (3) days without penalty. After 3 days, students will lose 10 points per day up to 50 points worth (or 8 days total). If a student misses more than 8 days, he or she will fail the course. School-sponsored absences are the only exception to this. Any other absence (for illness, vacation, or other issue) is considered the same. Students **may not** miss class on days when assigned to give a presentation. Occasionally, on days where presentations are given, students **are required** to be in class. If a student misses class on the day he/she presents, all points will be lost for that assignment. If a student misses on a presentation day when his/her peers present, he/she will lose 10% of the grade on his/her own presentation. For participation, students only need to be present, alert, and willing to participate in in-class activities. Playing on your laptop, reading a book, or sleeping will count as an absence.

**Late Work:** All assignments are due on the due date; late assignments will be docked **10% per late day**. Weekends count too. *For example, if an assignment is due on Thursday and you turn it in on Monday, it is four days late. This equals 40%, so the highest you could possibly make on an assignment worth 200 points would be a 120, assuming that the assignment was otherwise perfect.* Extensions (in rare circumstances) must be approved by me **PRIOR** to the due date.

**Questions concerning a grade:** If you have any questions concerning a grade, I will be happy to talk to you about it **24 hours** after the grade has been received and you have read through all the comments, and no later than **one week** after receiving the grade. After one week, grades will be final.

**Gradebook:** I will keep BlackBoard updated with your grades and notify you when I have done so. It is up to you to keep up with your grades. If I have recorded a grade incorrectly, please let me know within 48 hours of the grade posting.

**Rounding grades:** At the end of the semester, I round grades to the nearest percentage. If it is a .5 or higher, I round up. If you have, for example, an 89.5, it will round up to a 90%, or A-. But, if it is 89.4, it will remain a B+. My reason for doing this is to be fair to all students.

**Email Responses:** I will do my best respond within 24 hours (usually sooner) to your emails. For example, if you send me an email at 6:00pm on a Tuesday, do not expect a response that same evening. If I happen to be online, I will try to respond, but more than likely, you will not hear back until the next day. Like many workers in the field, I don't typically work in the evenings or much on the weekends.

## Academic Integrity

According to the 2007/2008 *Undergraduate Announcements*, "As members of the [redacted] University community, we have inherited [redacted]'s vision of this institution as a 'high seminary of learning.' Fundamental to that vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a [redacted] degree. Therefore, we shall not tolerate lying, cheating or stealing in any form."

## Students with Disabilities

It is University policy to provide, on a flexible and individualized basis, reasonable accommodations to students who have disabilities. Students are encouraged to contact Student Disability Services to discuss their individualized needs for accommodation. *Please let me know as soon as possible so we can work out accommodations.*