

Scientific Writing and Communication  
English 3150

Online Course  
Spring 2022

Instructor: Dr. Nancy Paxton-Wilson  
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### Course Description and Objectives

**CATALOGUE DESCRIPTION:** Study and practice of rhetorical conventions in professional scientific communication through the analysis and writing of major genres. Focuses on principles, strategies, and styles of scientific argumentation and audience adaptation in written, oral, and visual media. Intended for students majoring in the sciences. Preq: ENGL 1030; and BIOL 1030 or BIOL 1100; and Junior standing.

### STUDENT LEARNING OBJECTIVES: SCIENCE WRITING ENGL 3150

Students will practice and demonstrate skill in the following:

- Close reading and critical analysis of the rhetoric of scientific texts, including texts of narrow research interest text of broad perspectives on science
- Performing scientific research
- Creating textual examples or artifacts in the major genres of one's scientific discipline
  - Annotated bibliography
  - Research proposal
  - Scientific review or scientific paper
  - Scientific conference poster
  - Digital communication technology
- Presenting scientific data graphically in figures, tables, line graphs, diagrams, maps, etc.
- Revising others' writing as well as one's own
- Mastering style conventions, such as use of present v. past tense in reporting, passive v. active voice, etc.
- Recognizing the social contexts of communication in one's scientific discipline
- Reporting research or scientific data in presentation format
- Collaborating with peers in project planning and discussion
- Developing ethical practices regarding the use of others' intellectual property and correct citation according to the Council of Science Editors
- Adopting professional and ethical attitudes toward colleagues and toward communication in professional environments

### Required Texts



Thaiss, Christopher *Writing Science In The Twenty-First Century*. Broadview Press, 2019. ISBN: 978-1-55481-304-9

McMillan, Victoria E. *Writing Papers in the Biological Sciences* Sixth Edition. Bedford St. Martin, 2017. ISBN: 978-1-319-04713-9.

Kimmerer, Robin Wall. *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants*. Milkweed Editions; First Paperback edition, 2015. ISBN: 978-1571313560. Available Free Online through Cooper Library.

*Other Requirements:*

- *A Canvas Account*
- *A Clemson.edu email account*
- *Internet Access*
- *Word Processing Hardware*

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## Assignments

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Yellowdig Discussion and Peer Response 15% (300 word response; 2 additional responses to peers). Prompts will be posted each Sunday for the following week. These responses include the reading of additional materials not listed here.

Short Assignments 15%

Smallpox Case Study 5%

Research Grid 15%

IMRAD Analysis 10%

Cover Letter Project 20% (includes Resume, Job Posting, and Cover Letter)

Final Reflection Adobe Spark Page 20%

Besides the following short descriptions, I will provide in-depth prompts for all major assignments in Pages:

***Yellowdig Discussion Posts*** help students develop critical thinking skills. You will post a 300 word response. You will then reply to two peer responses. Discussion boards keep you connected to your classmates while you share thoughts, ideas and opinions. Rubric posted on a Page in Canvas.

***Short Writing Assignments*** are taken from exercises in your textbook.

***The Smallpox Case Study*** engages critical thinking skills.

***The Research Grid*** (Five Articles) helps students generate meaningful questions about a topic and synthesize findings from several sources.

Developing an ***IMRAD analysis*** (One Article) prompts students to find, summarize and evaluate sources.

***Cover Letter Project*** – You will locate a real-life job opportunity and create a cover letter in response to this job listing. By the end of this project, you will have a cover letter ready to adapt and send out.

For the ***Final Project***, students will create a Portrait of an International Scientist using Adobe Spark Page



### This Class is a Clemson Thinkers2 Seminar

As a Clemson Thinkers2 seminar (CT2), this course emphasizes the inculcation, development, and application of critical thinking skills. Cultivating critical thinking as both skillset and worldview is one of the primary goals we will strive toward through analysis of STS concerns, simultaneously reflecting the goals of the STS program and CT2.

### CT2 Objectives

Critical thinking is a matrix of behaviors, skills, and attitudes that work in conjunction to produce better thinking. For our purposes, better thinking means, for any complex question,

- Identifying key points of information, distinguishing what is necessary to consider from what is not
- Recognizing assumptions
- Differentiating opinion, fact, and justified claims
- Evaluating the applicability and quality of supposed evidence
- Discriminating between valid and invalid inferential claims
- Considering other viewpoints and related alternative responses
- Assessing the logical and practical consequences of a given response.

### CT2 Learning Outcomes:

- Explore complex challenges
- Analyze problems using multiple lenses
- Extrapolate from one conceptual context to others
- Synthesize alternative solutions to multi-dimensional challenges
- Communicate complex ideas

### Attendance and Lateness Policies

#### COURSE POLICIES & GRADING PROCEDURES

##### *Attendance*

Since this is an online class, your attendance depends on the fulfillment of online assignments. The instructor will determine what to do in case of extended illness or personal crisis on a case-by-case basis.

##### **Grading**

Grades will be calculated on an A, B, C, D, F scale.

Your major assignments will receive individual grades. Minor assignments will be assigned a separate grade. These assignments help to track your progress as we move through the semester. They indicate your willingness to be a part of

the course. As with any course, you will get out of it what you put into it. Your goal is to demonstrate your development toward mastery of the five learning outcomes for this course. These goals will be discussed throughout the course.

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### Email Guidelines

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Since this is a course devoted to learning professional writing standards and strategies, I am going to be very particular about how you conduct email correspondence with me. I will provide a separate sheet that explains email guidelines for this course. The information contained therein should be considered an official addendum to this syllabus.

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### Work Submission Guidelines

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Copies of major assignments should be submitted online **on the due date specified on the assignment sheet**. You are expected to produce high-quality professional documents.

All assignments are due within the first five minutes of class on the due date, unless otherwise specified. Any extensions need to be documented in writing. Late work without a valid excuse will negatively affect your grade. If a paper is turned in after the due date, its lateness will be taken into consideration when assessing the grade. The instructor determines the validity of excuses for late work, **NOT** the student.

All work may be turned in early for evaluation and/or pre-planned absences. Periodically, the instructor might revise the tentative course schedule; students are responsible for documenting any formally announced changes in the schedule.

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### Revisions

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You may revise **one** of the following this semester: the Research Grid, IMRAD, **OR** the Cover Letter Project. Please email me before you revise. See syllabus for last date to submit a revision. All revisions must be submitted as electronic copies and include the draft with my comments and original grade. Revisions that fail to adhere to these guidelines will not be considered.

When I look at revisions, I am not just checking to see that you made some sort of change. Instead, I am assessing the rhetorical effectiveness of the changes that you made. If your revisions are not rhetorically effective, your grade for the assignment will remain unchanged. Similarly, if you implement effective changes in some areas but leave other significant issues unaddressed, your grade for the assignment will not improve as much as you would like. It is therefore vital for you to read all my comments on your original draft thoroughly and make sure that you understand them. If a comment is unclear, then you should email me.

#### ***Additional Writing Support:***

***The Writing Center (307 Academic Success Center Building) OR Make an online appointment!***



*The Writing Center is a free tutoring service available to the entire student body, regardless of major or academic standing. It provides students opportunities to discuss questions or problems related to academic writing—from generating a topic and thesis to organizing a draft and integrating appropriate citations. The Writing Center's goal is to help Clemson students become confident and effective writers. As an English 3050 student, you should feel free to utilize the Writing Center to receive additional help or feedback on any course assignments or projects. You can make an appointment with a tutor by visiting the Writing Center's website (<http://www.clemson.edu/centers-institutes/writing/>), by calling them at 864-656-3280, or by simply stopping in.*

### Plagiarism and Academic Dishonesty

The following is Clemson's official statement on "Academic Integrity": "As members of the Clemson University community, we have inherited Thomas Green Clemson's vision of this institution as a 'high seminary of learning.' Fundamental to this 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 Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form."

A simple definition of plagiarism—one that we will expand upon this semester—is when someone presents another person's words, visuals, or ideas as his/her own. The instructor will deal with plagiarism on a case-by-case basis. The most serious offense within this category occurs when a student copies text from the Internet or from a collective file. *This type of academic dishonesty is a serious offense that will result in a failing grade for the course as well as the filing of a formal report to the university.*

See the Clemson site below for information about Academic Integrity and procedures regarding the violation of Clemson policies on scholastic dishonesty: <http://www.clemson.edu/academics/academic-integrity/>

### 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. For more information visit <http://www.clemson.edu/campus-life/campus-services/sds/index.html>

### Title IX (Sexual Harassment) Statement

Clemson University is committed to a policy of equal opportunity for all persons and does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender, pregnancy, national origin, age, disability, veteran's status, genetic information or protected activity (e.g., opposition to prohibited discrimination or participation in any complaint process, etc.) in employment, educational programs and activities, admissions and financial aid. This includes a prohibition against sexual harassment and sexual violence as mandated by Title IX of the Education Amendments of 1972. This policy is located at <http://www.clemson.edu/campus-life/campus-services/access/title-ix/>. Mr. Jerry Knighton is the Clemson University Title IX Coordinator and is also the Director of Access and Equity. His office is located at 111 Holtzendorrf Hall, 864.656.3181 (voice) or 864.565.0899 (TDD).

### Technology Requirements

This course requires the use of computer technologies in and out of class. Students are expected to bring their laptops to class with batteries fully charged. While some class time is provided for computer literacy instruction, the instructor will either provide additional help on an individual basis or recommend other support for advanced applications. **Cellular phones must be both turned off and stored away during class unless being used for assignment purposes.**

### Office Hours

TBD Zoom – email me to set up a meeting.



### *Nullius in verba*

Latin for "on the word of no one" or "take nobody's word for it" -- the motto of the Royal Society, established around 1652

## Course Schedule

This syllabus and the schedule below provide a general plan for the course. Deviations may be necessary. Students are responsible for noting and abiding by all announced changes. By remaining enrolled in the course beyond the first day, you acknowledge that you understand and accept the policies outlined in this syllabus.

*WS denotes the Christopher Thaiss textbook Writing Science*

*Mc denotes the Victoria E. McMillan textbook Writing Papers in the Biological Sciences*

**\*\*All weekly assignments due by Sunday at midnight, including main Yellowdig post.**

*I will post the discussion topic for the week Sunday afternoon. Discussion posts include the reading of various articles.*

**\*\*Two Yellowdig responses to peers due Monday at midnight**

### Week 1 Introduction

01/12 – 01/16

Familiarize yourself with the class syllabus.

Introductions in Yellowdig Discussion Post #1: write a 200-300 word “About Me.” In a separate short paragraph, identify a topic of research interest. Respond to two classmates’ posts.

Read “Critical Thinking” File in Pages

Read WS Introduction, Chapter 2

### Week 2 Smallpox Case Study

01/17 -- 01/23

Yellowdig Discussion Post #2 and Responses

Smallpox Case Study Due

### Week 3 Writing Science/Writing Ethically/Research Grid

01/24 – 01/30

Yellowdig Discussion Post #3 and Responses

Read WS Chapter 1 and Chapter 4

Read Mc Chapter 1

WS Ex. 5C p. 127 (You may use this article as part of your Research Grid)

**Begin Research Grid – see Research Grid Pages in Canvas for guidance**

### Week 4 Research Grid

01/31—02/06

Yellowdig Discussion Post #4 and Responses

Continue Research Grid

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**Week 5 Research Grid/IMRAD Analysis**

**02/07—02/13**

Yellowdig Discussion Post #5 and Responses

Begin IMRAD Analysis– Pick a Grid Article to write the IMRAD Analysis. See IMRAD Page in Pages

Research Grid Due

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**Week 6 IMRAD Analysis/Revising**

**02/14—02/20**

Yellowdig Discussion Post #6 and Responses

Continue IMRAD Analysis -- Due this week

Read WS Chapter 7 and Complete Ex. 7D *OR* 7E pg. 183

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**Week 7 Article Analysis**

**02/21 –02/27**

Yellowdig Discussion Post #7 and Responses

WS Ex. 5D pg. 130 -- Choose one of your Research Grid articles for this exercise.

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**Week 8 – Cover Letter Project**

**02/28 – 03/06**

Begin Cover Letter -- See Cover Letter Page

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**Week 9 Cover Letter Project**

**03/07—03/13**

Cover Letter Project

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**Week 10 Cover Letter Project**

**03/14—03/20**

Cover Letter Project Due

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**Week 11****SPRING BREAK**

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**Week 12 Style, Organization, Revision, Mechanics****03/28—04/03**

Read Mc Chapter 6 and 7. Revise Sample Draft according to comments p. 157-8

Read WS Chapter 13. Complete Ex. 13D p. 313

*Optional:* Revise one Project for re-submission

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**Week 13 Final Adobe Spark Page Project****04/04—04/10****Portrait of an International Scientist – Adobe Spark Page**

Read WS Chapter 3 for suggestions

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**Week 14 Adobe Spark Page Project****04/11– 04/17**

Adobe Spark Page

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**Week 15 Adobe Spark Page Project****04/18–04/24**

Yellowdig Discussion Post #8 and Responses – Tell us about your final project!

Adobe Spark Page

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**Week 16 + Adobe Spark Page Project****Adobe Spark Page Due by Final Exam Date**