



Technical Writing

Andrew Rusnak

ENGL 213, Technical Writing

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Office Hours: (See attached schedule)

Required Materials: (See attached reading and writing assignment handout below.)

Prerequisites: Students must have earned a C or better in ENGL 101.

Course Description: Offers instruction and practice in planning and producing documents that deal with corporate, technological, and scientific subjects; focuses on the writing process with an emphasis on creating clear, concise, audience-directed prose.

The Seven Rules of the Apocalypse!

- 1) **Be on time;**
- 2) **No electronics in class, no cell phones, no internet;**
- 3) **Turn your papers in on time and use the correct format;**
- 4) **Do all the readings and be prepared for reading quizzes as necessary;**
- 5) **Actively participate in class discussions and in-class writings (speak your mind);**
- 6) **Be prepared to think critically and imaginatively.**
- 7) **English 102 is a three credit course. Students should expect to work two hours on assignments and preparation outside of class for every one hour of class time.**

Overall Course Objectives

Upon completion of this course, students will be able to:

1. Develop and implement the concise writing style that is the basis of all technical writing;
2. Understand the stylistic differences between academic writing and technical writing;
3. Create texts using the stages of the writing process (planning, drafting, revising, editing);
4. Apply a variety of strategies for revising texts to accomplish specific communication objectives and to meet the needs of specialized audiences;
5. Apply the technical writing style to a variety of formats, including business letters, resumes, manuals, proposals, and technical reports;
6. Work collaboratively with peers to critique assigned writing projects;
7. Understand the basics of page layout techniques;
8. Utilize computer-generated graphics as a means of conveying information;
9. Conduct Internet and/or library research as needed to complete assigned writing projects; and
10. Develop critical editing and proofreading skills to create polished, professional documents.

Major Topics

- Definition of technical writing;
- Characteristics of clear, concise, audience-directed texts;
- Writing as a recursive process;
- Revision;
- Proofreading/polishing texts, the criticality of editing;
- Page layout techniques;
- Use of computer-generated graphics;
- Print and digital research;

Course Requirements

Individual writing projects will be determined by the instructor and will be described in the syllabus for each section. However, all students will:

1. Use computers to complete all assigned writing projects;
2. Participate in class activities;
3. Create at least four writing projects, each of which employs a different technical writing format (i.e., manuals, proposals, reports, etc.)

Other Course Information

The final grade will be based on the students' writing, graded either cumulatively or in an end-of-course portfolio.

Departmental Plagiarism Policy

1. Students who are determined by their English instructors to have plagiarized will:
 - a. First offense:
 1. Fail the assignment and receive no credit for it or in extreme cases, such as lifting large quantities of text from a source or another individual, fail the course;
 2. Meet with the department chair so that they can:
 - a. Appeal the decision if they wish;
 - b. Be advised of the consequences if they are caught plagiarizing a second time; or
 - c. Be advised where to get help so that they can avoid plagiarizing in the future.
 - b. Second offense:
 1. Fail the writing course in which they are enrolled whether it is the same course as their first offense or another writing course;
 2. Meet with the department chair and the division dean so that they can:
 - a. Appeal the decision if they wish;
 - b. Be advised of the consequences if they are caught plagiarizing again; and
 - c. Be advised where to get help so that they can avoid plagiarizing in the future.
 - c. Third offense:
 1. Be recommended for expulsion from CCBC.
2. At the meeting to discuss a student's first offense, the department chair will open a file to maintain a record of the student's plagiarism.
3. Plagiarism is representing as one's own material words or ideas taken from other sources. Plagiarism includes failure to place in quotation marks and cite researched material from sources as well as buying or copying papers from another person or from the Internet.



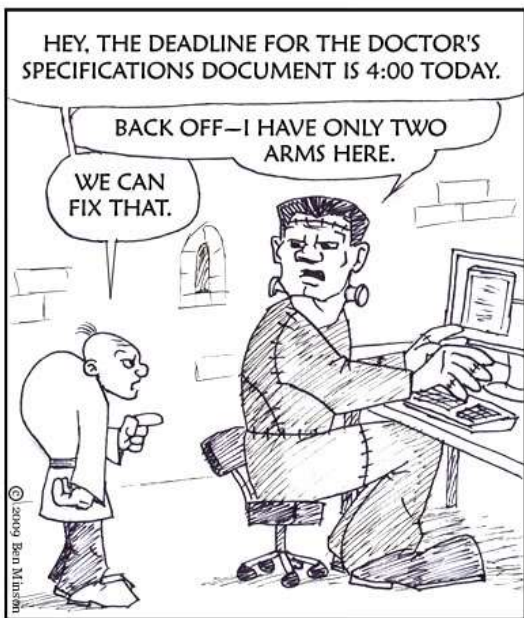
Andy Rusnak, Asst. Professor, English
English 213, Technical Writing, **Reading and Writing Assignment Schedule**

This is your mantra for the semester: *Imagination is more important than knowledge, for knowledge is limited to all we know and understand, while imagination embraces the entire world, and all there ever will be to know and understand.*
—Albert Einstein

And: *Irrationally held truths may be more harmful than reasoned errors.* —Thomas Huxley

Think critically and think imaginatively. These two parts of your mind are critical to good technical and scientific writing. Imagination is critical to the process, analyzing audiences—thought patterns, assumptions, expectations—reaching beyond. Critical thinking is obviously important in comprehending objects, finite operations and procedures, equipment, or data. This class will cover:

- The process and evaluation of imaginative and critical scientific and technical writing;
- Some background on history of technology and philosophy of science;
- How and where technology interfaces with culture and the resultant (if any) ethical implications;
- The importance of creating strong visual rhetoric; and
- Having fun.



In Dr. Frankenstein's Documentation Department

The class will attempt to streamline curricula to meet needs peculiar to relevant disciplines—health science, information technology, engineering. Students will be able to customize writing assignment subject matter to build portfolios that are relevant to specific

disciplines. I will attempt to bring in working professionals who can speak authoritatively to the class. The keys here are:

- Class participation, expressing your ideas and opinions, bringing passion to the discussion;
- Defining the circumstances in which you will use technical and scientific writing in your careers;
- **Understanding that there is not an antithetical relationship between “language arts” and language skills, and understanding and expressing technical and scientific concepts. The world is a much more synthesized place these days. There is no progress in protectionism of any kind, protection of disciplines or subject-matter-turf. Protectionism is about ego and social construction. However, the deeper you appreciate, understand, and are able to use language, the more you will be perceived as able and competent no matter what field you work in.**

We are all apprentices in a craft where no one ever becomes a master.
Hemingway

Writing Assignments and Grading:

Assignment	% of Grade	Due Date	Words
<p>Assign #1: Class participation, news bits, in-class writings: Every class students will be responsible for completing the readings in <i>Elements of Technical Writing</i>, <i>What's Next?</i> <i>Dispatches on the Future of Science: Original Essays From a New Generation of Scientists</i>, and <i>How to Get Started as a Technical Writer</i>. You must come to class prepared to participate in class discussion. That means with at least three questions you have gleaned from the "<i>Best of</i>" reading. Your attendance and participation in class is critical to your final grade. Bring your own ideas, be original, passionate, be respectful, tolerant.</p>	25		
<p>Assignment #2: Come to class prepared to give a short 1-2 minute oral report on any science and/or technology subject/topic of your choice. Scan the internet, newspapers, magazines, books and look for a small news item that you can relate to the class. This is not a formal presentation, just a quick, "here's something new in the world of science and technology" exercise. We will rotate so you will need to bring your "news bit" once every couple weeks or so, only 2-3 times/semester. Present information and propose technological, economic, cultural, and/or moral implications.</p>			
<p>Assign. #3: Portfolio completion: Completion of portfolio based on the text, <i>What's Next? Dispatches on the Future of Science: Original Essays From a New Generation of Scientists</i>. Each chapter asks a question requiring a 1,500 word response. You must read all the essays for class, but are only required to write on two. If I suspect students are not reading based on lack of class participation, reading quizzes will be administered. All essays must have three legitimate outside sources, use in-text citations, set up a works cited or references page, and be written in either MLA or APA format.</p>	25	Readings used for every class.	2 papers, 1,500 words each, APA format, 3 outside sources.
<p>Assign. #4: PowerPoint presentation: For this assignment you must assume the role of innovator and entrepreneur. I want you to target a "problem" or an "issue," one of a technical or scientific nature. It can be a product or a process. It can be part of a biological process or a mechanical process. It can really be anything you have an interest in. Come up with 10-15 slide presentation on a workable solution, how this product or process will be used to improve whatever conditions you are targeting.. You can invent a new product or process or make an old one more efficient. In your presentation you must: 1) explain in technical detail the problem; 2) define the market in detail; 3) estimate the cost; 4) describe in technical detail the solution; 5) project the future success of your product or process; 6) use at least three tables or charts in your presentation that helps with explanations; 7) use diagrams that help visually illustrate what you are trying to demonstrate. Innovation is this country's most important commodity for future economies. You must learn to think this way.</p> <p>Assign. #5: Prepare a technical manual based on your PowerPoint subject: This is an exercise in sequential writing, explaining something to an audience. Prepare at least a 20-page technical manual based on the subject of your PowerPoint presentation. This manual must provide background history of the product or process. It must explain its purpose and provide step-by-step instructions for its intended use. Use other tech manuals as templates or guides on how to construct your own.</p>	50		10-15 PP slides Technical Manual – 20 pages
<p>(Extra credit) Reaction Paper/Film: Fuel. Write a 1,500-word summary that fully explains the theme in this film: "Change Your Fuel ... Change Your World." After you write the summary, save a paragraph at the end to write up what you feel are the implications of what you've learned.</p> <p>(Extra credit) Reaction Paper/Film: Transcendent Man. Ray Kurzweil and his ideas that technology expands exponentially, that physical man is becoming a synthesis of biology and technology, that we can, essentially, live forever are very controversial. Write a 1,500-word reaction and summary to the ideas featured in this film.</p>			
Total:	100		



Texts:

- 1) **What's Next? Dispatches on the Future of Science: Original Essays From a New Generation of Scientists**, John Brockman, Ed
- 2) **Elements of Technical Writing**, Gary Blake & Robert W. Bly
- 3) **How to Get Started as a Technical Writer**, James Gill

Reading assignments will be given for each class. You must stay current even if we do not cover material in class. We will keep a steady pace on all three text books. Eventually we will cover all material.

Reading Schedule

Class	Reading
2	From <i>What's Next</i> , Will We Decamp for the Northern Rim?. From <i>Elements of Technical Writing</i> Ch. 1, Fundamentals of Effective Technical Writing.
3	From <i>What's Next</i> , Mirror Neurons. From <i>Elements of Technical Writing</i> Ch. 2, How to Write Numbers, Units of Measure, Equations, and Symbols.
4	From <i>What's Next</i> , How to Enhance Human Beings. From <i>Elements of Technical Writing</i> Ch. 3, A Few Useful Rules of Punctuation, Grammar, Abbreviation, and Capitalization.
5	From <i>What's Next</i> , Our Place in an Unnatural Universe. From <i>Elements of Technical Writing</i> Ch. 4, Principles of Technical Communication.
6	From <i>What's Next</i> , Just What is Dark Energy? From <i>Elements of Technical Writing</i> Ch. 5, Words and Phrases Commonly Misused in Technical Writing.
7	From <i>What's Next</i> , Just What is Dark Energy? From <i>Elements of Technical Writing</i> , Ch. 6, Proposals and Specifications.
8	From <i>What's Next</i> , Development of the Social Brain in Adolescence. From <i>Elements of Technical Writing</i> , Ch. 7, Technical Articles, Papers, Abstracts, and Reports.
9	From <i>What's Next</i> , Watching Minds Interact. From <i>Elements of Technical Writing</i> , Ch. 8, Letters and Memos.
10	From <i>What's Next</i> , <i>What Makes Big Ideas Sticky?</i> From, <i>Elements of Technical Writing</i> , Ch. 9, Manuals and Documentation, Appendix A & B, Writing in the Systems Environment, & A Brief Guide to Software for Writers.
11	<i>How to Get Started as a Technical Writer</i>
12	From <i>What's Next</i> , Fruit Flies of the Moral Mind & How Does Our Language Shape the Way we Think?
13	From <i>What's Next</i> , Memory Enhancement, Memory Erasure: The Future of Our Past & The Vital Importance of Imagination.
14	From <i>What's Next</i> , Brain Time & Out of Our Minds: How Did Homo Sapiens Come Down From the Trees and Why Did No One Follow? & The Aliens Among Us.
15	How Did the Social Insects Become Social & Extinction and the Evolution of Human Kind & Why Hasn't Specialization Led to the Balkanization of Science?
16	Start Presentations

Reading/Discussion/News Bits

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Presentation Schedule

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Technical & Science Writing	Function	Final Products	Audiences
Technical Communicator/Writer	Acts as interface between subject-matter experts, which include designers and engineers, and end users/customers. Reduces technical language for user comprehension. This includes professional job titles that don't include "writer," e.g. nurse, technician, paralegal, technician.	User documentation, design specifications, installation manuals, hardware & software manuals, technical proposals, reports, presentations.	Various user groups ranging from mainstream to B-to-B customers, government personnel, contractors, sub-contractors.
Science Writers	Via research, acquires specific and detailed academic subject-matter expertise in physical or social sciences and publishes results in peer-reviewed journals.	Well researched, peer-reviewed reports for publication in peer-reviewed journals, print and/or online versions.	Peers who practice same academic discipline.
Technical & Science Journalists	Writers and journalists who interpret the latest scientific and technical research, prepare easily digestible content for mainstream consumption in print and/or online versions.	Mainstream print or online news items, short and long features, blogs.	Mainstream, general audiences.
Technical & Science Public and/or Media Relations Managers/Dir.	To work as a spokesperson for a private company, government agency, non-profit, or public institution that produces, researches, or represents technical or scientific subject matter.	Reports, articles, press releases, presentations.	News outlets, mainstream public, local communities, government representatives and interests, new customers.