Instructor's Resource Manual

to accompany

Technical Communication

Fourteenth Edition

John M. Lannon

University of Massachusetts, Dartmouth

Laura J. Gurak

University of Minnesota

Lee Scholder

This work is protected by United States copyright laws and is provided solely for the use of instructors in teaching their courses and assessing student learning. Dissemination or sale of any part of this work (including on the World Wide Web) will destroy the integrity of the work and is not permitted. The work and materials from it should never be made available to students except by instructors using the accompanying text in their classes. All recipients of this work are expected to abide by these restrictions and to honor the intended pedagogical purposes and the needs of other instructors who rely on these materials.

Senior Acquisitions Editor: Brad Potthoff Project Manager: Denise Phillip Grant

Electronic Page Makeup: Grapevine Publishing Services, Inc.

Instructor's Resource Manual to accompany *Technical Communication*, Fourteenth Edition by John M. Lannon and Laura J. Gurak.

Copyright © 2017, 2014, 2011 by Pearson Education, Inc.

All rights reserved. Printed in the United States of America. Instructors may reproduce portions of this book for classroom use only. All other reproductions are strictly prohibited without prior permission of the publisher, except in the case of brief quotations embodied in critical articles and reviews.

ISBN 10:

0-13-411917-7

ISBN 10: 978-0-13-411917-5



Contents

Table of Master Sheets v

The Composition Teacher as Technical Writing Teacher I

Using the Masters for Classroom or Online Instruction 4

Annotated Bibliography of Resources for Teachers 6

General Suggestions 12

The Workshop Approach 14

Working with Service-Learning Projects 17

Using the Objective Test Questions 19

Grading Procedure 20

Sample Syllabi 23

Part I	Communicating in the Workplace 29
Chapter 1	Introduction to Technical Communication 30
Chapter 2	Meeting the Needs of Specific Audiences 36
Chapter 3	Persuading Your Audience 45
Chapter 4	Weighing the Ethical Issues 54
Chapter 5	Teamwork and Global Considerations 71
Chapter 6	An Overview of the Technical Writing Process 80
Part II	The Research Process 93
Chapter 7	Thinking Critically about the Research Process 94
Chapter 8	Evaluating and Interpreting Information 111
Chapter 9	Summarizing Research Findings and Other Information 117

Part III	Organization, Style, and Visual Design 121
Chapter 10	Organizing for Readers 122
Chapter 11	Editing for a Professional Style and Tone 142
Chapter 12	Designing Visual Information 166
Chapter 13	Designing Pages and Documents 181
Part IV	Specific Documents and Applications 191
Chapter 14	Email and Text Messages 192
Chapter 15	Workplace Memos and Letters 195
Chapter 16	Résumés and Other Job-Search Materials 204
Chapter 17	Technical Definitions 225
Chapter 18	Technical Descriptions, Specifications, and Marketing Materials 230
Chapter 19	Instructions and Procedures 236
Chapter 20	Informal Reports 242
Chapter 21	Formal Analytical Reports 246
Chapter 22	Proposals 255
Chapter 23	Oral Presentations and Webinars 266
Chapter 24	Blogs, Wikis, and Web Pages 271
Chapter 25	Social Media 275

Objective Test Questions 278

Answers to Objective Test Questions 306

Answers to Chapter Quiz Questions 308

Casebook: The Writing Process Illustrated 313

Table of Master Sheets

Sheet		
Numbers	Title	Page
1	Grading System and Course Specifications	21
2	Point Grade Equivalents	22
3–4	Syllabus A	24–25
5–6	Syllabus B	26–27
7	Guidelines for Memo Formatting	33
8	How a Document Is Evaluated	34
9	Chapter 1 Quiz	35
10	Coping with a "Dangerous" Audience	39
11	Deciding on a Document's Level of Technicality	40
12–14	Audience and Use Profile Sheet	41–43
15	Chapter 2 Quiz.	44
16	Standard Shape for an Argument	50
17–18	A Sample Audience Analysis for the Additional Team Assignment	
19	Chapter 3 Quiz.	53
20	A Sample Code of Ethics	58
21–26	Paraphrasing Source Material	59–64
27	Analyzing Ethics Programs and Training Sites	65
28	USDA Office of Ethics Web Site	66
29	NASA Ethics Program Site	67
30	FDA Ethics Program Web Site	68
31	Ethics Site Analysis	
32	Chapter 4 Quiz.	70
33	Project Planning Form for Managing a Collaborative Project	74
34	Team Pledge	
35	Sample Form for Evaluating Team Members	76
36	Team Evaluation Form	
37	Team Questionnaire	78
38	Chapter 5 Quiz	79
39-40	Sample Situations for Communicators	81–82
41	How a Document Is Composed	83
42	The Writing Process for Technical Documents	
43	Creative and Critical Thinking in the Writing Process	
44	A Flowchart of the Writing Process	
	S	

45	Decisions in Planning the Document	87
46	Decisions in Drafting the Document.	88
47–48	Decisions in Revising the Document	89–90
49	Chapter 6 Quiz.	91
50-51	The Purpose of Research	100–101
52-53	Examples of Research Topics	102–103
54	A Flowchart of the Research Process	104
55	Subject Directories and Search Engines	105
56-57	Keyword Searches Using Boolean Operators	106–107
58-59	Selecting the Best Interview Medium	108–109
60	Chapter 7 Quiz	110
61	Suggested Responses to Additional Exercise 2.	115
62	Chapter 8 Quiz	116
63	Chapter 9 Quiz	120
64–71	Examples of Sequencing	126–133
72–73	The Purpose of Classification and Partition	134–135
74	Classification of Research Data	136
75	Partition of Research Data	137
76	Using the Topic Sentence for Orientation	138
77	Common Transitions and the Relations They Indicate	139
78	Suggested Response for the Team Project, Chapter 10	140
79	Chapter 10 Quiz	
80-81	Efficiency and Your Documents	145–146
82-99	Suggested Responses to Chapter 11 Style Exercises	147–164
100	Chapter 11 Quiz	
101	Answers to General Project 5	169
102-108	Responses to Visuals Exercises	170–176
109	An Overlay Graph	177
110	A Subdivided Pie Chart	178
111	A Distorted Bar Graph	179
112	Chapter 12 Quiz	180
113	A Flowchart for Decisions in Page Design	183
114	One Alternative Format for Headings	184
115	Ineffective Page Design	185
116	Effective Page Design	186
117	A Design with Excessive Highlights	187
118	Two Different Designs for the Same Message	188
119	Chapter 13 Quiz	189
120	Chapter 14 Quiz	194
121	Summary Memo in Email Format	198
122	A Complaint Letter About a Political Issue	199
123	An Effective Claim Letter	
124	Plain Language "Before" Example	201
125	Plain Language "After" Example	202
126	Chapter 15 Quiz	
127-128	Ineffective Letters of Application	
129-132	Résumé and Letter from an Applicant with Broad Experience	
133	Letter Openings: Good and Bad	
134	Letter Closings: Good and Bad	
135–137	Mary Jo's Writing Situation, First and Final Drafts	219–221

138	A Job-Hunting Assignment	222
139	A Group Assignment in Job Hunting	223
140	Chapter 16 Quiz	224
141	Expanded Definition on a Web Site	228
142	Chapter 17 Quiz	229
143	A Product Description	234
144	Chapter 18 Quiz	235
145	Three Ways of Making a Peanut-Butter Sandwich	239
146	Procedure for Caring for Contact Lenses	240
147	Chapter 19 Quiz	241
148	Chapter 20 Quiz	245
149	Refining the Analytical Question	250
150–151	Additional Topics for Analysis	251–252
152	Answers to Additional Exercise 1	253
153	Chapter 21 Quiz	254
154	Proposal Topic Ideas	259
155–156	One Student's Research Proposal	260–261
157	Another Student's Research Proposal	262
158	How to Refine a Proposal Topic	263
159	Typical Proposal Solicitations (SBIR)	264
160	Chapter 22 Quiz	265
161	Peer Evaluation for Oral Presentations	269
162	Chapter 23 Quiz	$\dots \dots 270$
163	Chapter 24 Quiz	274
164	Chapter 25 Quiz	277
165–175	Case 1: Preparing a Personal Statement	314–324
176–195	Case 2: Documents for the Course Project	325–344
196–215	Case 3: Scientific Funding Proposal	345–364

The Composition Teacher as Technical Writing Teacher

As demand increases for technical writing courses, many instructors are recruited to teach a subject that they might regard as alien to their training, ability, and primary interests. But anyone experienced in teaching composition can make an easy and rewarding transition to teaching technical writing. Your proven ability to assess clarity, economy, organization, and rhetorical effectiveness provides the essential ingredient—along with a touch of curiosity and willingness to experiment. In this course, as in any composition course, purpose, audience, and rhetorical strategy are stressed.

In technical writing, a major rhetorical challenge is to write for an audience whose technical understanding is less than the writer's own. Accordingly, the emphasis in this text is on writing for a general audience. Instructors without technical background, therefore, make an ideal audience—as do students with widely varied majors.

Technical Writing's Practical Focus

In a technical writing class, you don't need to struggle for answers to the student's implied question on each assignment: "Why are we doing this?" Because students choose subjects with observable limits, and because they write for a specific reader in a specific situation, they are able to make the connection between writing in the classroom and writing in the workplace. And with high motivation, skills improve quickly.

Students learn to master rhetorical strategies by writing about subjects of primary or immediate interest. The issues are more substantive than abstract. A report analyzing why the campus has no day-care center may require these expository skills: classification, definition, description, narration, and persuasion, in addition to strategies for summary writing, outlining, primary and secondary research, and letter writing. Along with obtaining valuable writing practice, then, students in this course develop a clear sense of purpose, because they write about problems that touch them and their community. The range and variety of topics are infinite, with repeated emphasis on highly informative writing. Writing is taken out of the rarefied English classroom and based in the real world. As an act of communication for a specific purpose to a specific audience, writing becomes more a cognitive than an affective task, more than an exercise in creative self-expression. Justifi-

cation for such assignments is both implicit and explicit. With practice in thinking and writing for a tangible situation and purpose, for an audience who will *use* the information, students in any major leave the course better prepared to think and write incisively about any subject.

A report-writing assignment is, in effect, an instructor's call to "teach me," rather than "discover yourself." The practical purpose for writing is always clear. Unlike the rhetorical errors in more personal writing, deficiencies in a factual message can be identified readily; moreover, a summary, an expanded definition, a set of instructions, a physical description, or a proposal provides common ground for student-teacher discussion of content, arrangement, and style.

Technical Writing as a Point of View

For the skeptical newcomer, technical writing's greatest liability is its name. The term "technical," often misleading for both instructors and students, leads to misunderstanding about what goes on in a technical writing course. It is one thing to discuss a *technical subject* (a specialized subject, usually mechanical or scientific); it is another to discuss any subject, technical or not, from a *technical point of view* (an informed and precise perspective from which the writer sees the related particulars of a subject). Even the most abstract subjects are discussed from a technical point of view if interpretations and conclusions are predicated on demonstrable evidence, and if the writing has utility beyond self-expression; literary criticism is an example.

In technical writing, the cognitive tasks of observing, interpreting, and reporting discourage any tendency to make absolute or sweeping statements. And, because guidelines for structure and format include an explicit and inclusive title, a clear statement of purpose, a detailed outline, and relevant headings, students maintain a sense of direction consistent with purpose. Far from enforcing mindless, mechanical transcription, technical writing assignments elicit thought and expression that are deliberate; volition rather than chance shapes the message.

Because of its concrete subject matter, technical writing encourages analytical thought. Students learn to pose imaginative questions, to answer them by precisely interpreting factual evidence, and to communicate their findings in a "professional" format. The approach is empirical, not mechanical. Students see that they are writing for a reason, and that good writing is the product of a good plan and a clear sense of the specific reader's specific needs. Written assignments, oral reports, and class discussions about analogues in the real world—e.g., evaluating your college's internship program, establishing a student-operated food co-op, comparing four popular wood-burning stoves, analyzing safety devices at a local nuclear power plant—all have practical translations, are easy to justify, and are carried out with enthusiasm. Ideally, a student report will also satisfy an assignment in another course.

Assignments with a Purpose

As a major course project, the analytical report can evolve from shorter assignments in summary writing, definition, description, and the like. Students are motivated when convinced that they are not performing an exercise in busywork or philosophical rambling; instructors are pleased to learn something informative instead of suffering the usual, thankless, and bleary-eyed plodding through unmemorable essays.

In short, teaching technical writing is one way in which instructors can make the required conceptual and practical adjustment from education for its own sake to education with a visible purpose. Such a change hardly means settling for second best. This kind of teaching, as many continue to discover, offers the occasion for growing professionally and for actively involving our students in reciprocal teaching and learning.

Using the Masters for Classroom or Online Instruction

This manual includes master sheets associated with each book chapter that you might use in a number of ways. You can copy and distribute this material as handouts. You can also integrate these into your presentations during class by projecting them right from the digital version of this instructor's manual, integrating excerpts into your PowerPoint or other digital presentations, or projecting them via document cameras or transparencies. If you are teaching an online or hybrid course, you can also extract these as pdf files and distribute them via email or your learning management system (LMS).

For Quizzes

No book will do students any good unless they read it. To ensure that your students have (1) done the reading and (2) understood what they have read, you might use the quiz at the end of each chapter discussion section. Each quiz has ten questions that can be answered in ten to fifteen minutes. You can reproduce the quizzes directly from the PDF of this manual. You may also enter the questions directly into the quiz tool of your online learning management system.

For Writing Samples

In addition to quizzes, many chapter discussions are supplemented by Master sheets of visuals and writing samples. In the discussions of the letter and short-report chapters, masters of student writing illustrate successful responses to exercises in order to complement many of the on-the-job examples from the textbook.

For Syllabi and Course Description

Either of the two sample syllabi, the course specifications, and the description of a grading system can be reproduced directly.

Advantages of a Visual Format

Besides enhancing class discussion and lectures and improving students' attention, routine exposure to visuals is valuable preparation for students' careers. Research suggests

that, in any presentation, speakers who use visuals are regarded as better prepared than speakers without such aids.

How Master Sheets Are Distributed in This Manual

To follow the same principles of efficiency set forth in the textbook, master sheets have been deliberately omitted (except for quizzes) from some chapters. Most of the master sheets are found in Part I (to enhance discussions about the writing process) and in Part IV (to provide guidance in planning and revising typical documents). For Part II, documents produced by your own students should provide abundant examples.

As a quick survey of the Table of Master Sheets suggests, the emphasis in this material is on the *process*, not just the *product*. Instead of merely showing sample responses to this or that assignment, many of the masters illustrate the writing process as a *thinking* process.

Annotated Bibliography of Resources for Teachers

Journals

Up-to-date information on these journals can be found online. Journals affiliated with a professional society are typically included as part of the membership dues.

IEEE Transactions on Professional Communication. Institute of Electrical and Electronics Engineers.

Journal of Business Communication. Association for Business Communication.

Journal of Business and Technical Communication. Sage Publications.

Journal of Mass Media Ethics. Published by Taylor & Francis Group.

Journal of Technical Writing and Communication. Sage Publications.

Technical Communication. Society for Technical Communication (STC).

Technical Communication Quarterly. Association of Teachers of Technical Writing (ATTW).

Bibliographies

- "Academic and Practitioner Perspectives on Essential Works in Technical Communication." Gerald J. Alred. *ATTW Bulletin* 15.1 (Spring 2005): 11–13.
- "ATTW Bibliography." The Association of Teachers of Technical Writing (ATTW) offers a yearly listing of literature in technical and scientific communication. Available on the ATTW Web site.
- "Information Design: A Bibliography." Michael J. Albers and Beth Conney Lisberg. *Technical Communication* 47.2 (2000): 170–176.

Collaboration

- "Collaboration: How Japanese Poetry Can Help Tech Writers." David L. Major. *Issues in Integrative Studies* 26 (2008): 105–137. The author of this article "draws on the practice of collaboration in Japanese poetry to suggest strategies for dealing with the most common problems in collaborative writing."
- "Collaborative Writing: Bridging the Gap between the Textbook and the Workplace." Stephen Bremner. English for Specific Purposes 29 (2010): 121–132. This study of eight technical writing textbooks examines the effectiveness of teaching collaboration and offers suggestions for effective classroom instruction.
- "The Role of Communication and Trust in Global Virtual Teams: A Social Network Perspective." Saonee Sarker, Manju Ahuja, Suprateek Sarker, and Sarah Kirkeby. *Journal of Management Information Systems* 28 (2011): 273–309. These authors examined the role of trust and communication on individual performance in globally distributed student teams.
- Writing Together: Collaboration in Theory and Practice. Andrea A. Lunsford and Lisa Ede. Boston: Bedford/St. Martin's, 2012. This collection of essays by two collaborators spans decades of their work together. Though primarily intended for composition teachers, many of the essays apply also to technical communication. One of the most recent contributions to the collection looks at audiences and new media. The book includes the 1990 article "Collaborative Writers at Work."
- "Using Knowledge Networks to Teach Online Writing Skills in the Professional Writing Classroom." Rachel Robertson. In Herrington, A. and Schrape, J. and Singh, K. (eds). *Engaging Students with Learning Technologies*. Perth, Western Australia: Curtin University, 2012. 167–176. Describes a project requiring students to use Google Docs and Google sites to complete individual and collaborative projects involving writing for online audiences. Includes compelling student feedback on the project.

Ethical Communication

- Avoiding Plagiarism, Self-plagiarism, and Other Questionable Writing Practices: A Guide to Ethical Writing. Miguel Roig. Search for this article at <ori.hhs.gov>. A thorough discussion of the topic. Though written for scientists, the guide is useful to students across disciplines.
- *Copyright Basics*. Library of Congress. Provides basic information on U.S. copyright law in an easy-to-read format. Search for "Circular 1" at <www.copyright.gov>.
- Honest Work: A Business Ethics Reader, 2nd ed. Ed. Joanne B. Ciulla, Clancy Martin, Robert C. Solomon. New York: Oxford University Press, 2011.
- Office of Research Integrity (ORI), U.S. Department of Health and Human Services. <ori.hhs.gov>. Promotes ethical conduct in the health and behavioral sciences. Publishes a quarterly newsletter. The Web site lists external resources and educational materials about topics such as peer review and collaboration.

- Plagiarism.org. <www.plagiarism.org>. Covers the topic in detail; offers resources; links to Webinars and other helpful sites.
- Professional Ethics Report. This quarterly newsletter is published by the American Association for the Advancement of Science, 1333 H Street, NW, Washington, DC 20005. Email per@aaas.org and ask to be placed on the emailing list.
- "Rethinking Plagiarism for Technical Communication." Jessica Reyman. *Technical Communication* 55.1 (2008): 61–67. This insightful article re-examines the concept of plagiarism in the workplace and encourages technical writing teachers to examine appropriate textual usages with their students.

General Resources

- Academic Dishonesty: An Educator's Guide. Bernard Whitley, Jr., and Patricia Keith-Spiegel. New York: Psychology Press, 2001. In addition to research findings and broader considerations about academic dishonesty, these authors offer good practical advice for dealing with the problem.
- The Art of Thinking: A Guide to Critical and Creative Thought. 11th ed. Vincent R. Ruggiero. New York: Longman, 2014. Excellent and accessible coverage of creative and critical thinking.
- Bugs in Writing: Debugging Your Prose. 2nd ed. Lyn Dupré. Reading, MA: Addison-Wesley, 1998. An excellent reference for matters of grammar, page design, audience analysis, and persona, this book offers a no-nonsense approach.
- Central Works in Technical Communication. 2004. Johndan Johnson-Eilola and Stuart A. Selber (eds). Oxford University Press. Contains landmark essays in technical communication; provides good overview of the history and practices of the field.
- Engineering Psychology and Human Performance. 4th ed. Christopher D. Wickens et al. New York: Psychology Press, 2013. A detailed analysis of "human factors" as they affect information processing, this work is essential reading for professional communicators.
- Risk Communication: A Handbook for Communicating Environmental, Safety, and Health Risks. 5th ed. Regina E. Lundgren and Andrea H. McMakin. New York: Wiley-IEEE Press, 2013. Offers up-to-date practical advice to professionals including engineers, scientists, communicators, and healthcare professionals.
- "Technical Communication and Usability: Intertwined Strands and Mutual Influences." Janice Redish. *IEEE Transactions on Professional Communication* 53.3 (2010): 191–201. A concise yet thorough history of usability in technical communication, with a discussion of future directions.
- Technical Editing. Carolyn D. Rude. 5th ed. New York: Longman, 2010. This excellent overview of editing as a reader-centered process covers copy editing, substantive

- editing, management and production, and the global marketplace.
- Writing Power: Communication in an Engineering Center. Dorothy A. Winsor. Albany, NY: State University of New York Press, 2003. An illuminating case study of one engineering corporation's use of texts within its organizational structure.
- "Writing Useful Technical/Business Objectives." William J. Pardee. *Research-Technology Management* 48.1 (2005): 13–17. Offers clear advice on writing successful proposal objectives.

Research

- A Research Primer for Technical Communication: Methods, Exemplars, and Analyses. Michael A. Hughes and George F. Hayhoe. New York: Routledge, 2007. A sourcebook for those conducting research in technical communication.
- Qualitative Research in Technical Communication. Eds. James Conklin and George F. Hayhoe. New York: Routledge, 2010. A collection covering qualitative methodologies such as ethnography, the case study, focus groups, action research, grounded theory, and interview research.
- Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. 4th ed. John W. Creswell. Thousand Oaks, CA: Sage Publications, 2014. This work offers valuable insight into design, evaluation, and methodology.
- Research in Technical Communication. Mary M. Lay and Laura J. Gurak. Westport, CT: Greenwood, 2002. Informative essays on workplace research and methods.

Service-Learning Resources

- Cross, Ava. "Nonprofit Communications from a Corporate Communication Viewpoint." *Business Communication Quarterly* 69.3 (Sept. 2006): 316–319. Presents an assignment requiring students to write a report about a nonprofit organization's communication structure.
- Mennan, Kathy. "Use Service Learning to Add Real World Writing Experience to Your Course." *Business Communication Quarterly* 69.2 (June 2006): 192–195. Offers tips for incorporating service-learning projects into business communication courses.
- National Council of Teachers of English (NCTE). Search under "service learning" at <www.ncte.org>.
- Rehling, Louise. "Doing Good While Doing Well: Service Learning Internships." *Business Communication Quarterly* 63.1 (March 2000): 77–89. Presents a case for the benefits of service-learning internships and outlines steps for creating a service-learning program.
- Technical Communication Quarterly. Two special issues: "Redefining the Technical Communication Service Course" 8.3 (Summer 1999): 240–360; "Blending School and Work in

Technical Communication: Critical Perspectives" 10.2 (Spring 2001): 125–240. Two collections that offer articles on many aspects of service learning in relation to corporate and nonprofit settings.

Social Media

- Social Media Governance Policy Database. <socialmediagovernance.com/policies>. This site offers a database of social media policies from nonprofit organizations, corporations, and governmental agencies and is an excellent resource for comparing social media policies.
- "Social Media Use in Organizations." Jeffrey W. Treem and Paul M. Leonardi. Communication Yearbook 36 (2012): 143–189. This review of social media studies examines four factors that affect power, knowledge, sharing, and socialization in organizations.
- "Social Networking Privacy: How to be Safe, Secure, and Social." <www.privacyrights .org/social-networking-privacy>. This fact sheet from the Privacy Rights Clearing-house provides abundant information and helpful tips as well as links to many useful resources.
- "Understanding the Wired Workplace: The Effects of Job Characteristics on Employees' Personal Online Communication at Work." Guowei Jian. *Communication Research Reports* 30.1 (2013): 22–33. This study provides an illuminating look at how job characteristics affect employees' personal online communication in the workplace.
- Workplace Challenges Associated with Employees' Social Media Use. <www.acc.com/legalresources/quickcounsel/wcawesmu.cfm>. From the Association of Corporate Counsel, this site details various legal concerns for employers and provides links to other resources.

Teaching Online

- Multimedia Educational Resource for Learning and Online Teaching (MERLOT). <www.merlot .org/merlot/index.htm>. A vast repository of peer-reviewed articles and materials for educators and students in all disciplines.
- *Teaching Online: A Practical Guide,* 3rd ed. Susan Schorr Ko. New York: Routledge, 2010. An essential read for instructors teaching fully online or hybrid courses. Contents include resources, interviews with faculty, and practical advice.
- The Online Teaching Survival Guide: Simple and Practical Pedagogical Tips. Judith V. Boettcher and Rita-Marie Conrad. San Francisco: Jossey-Bass, 2010. Excellent source of instructional advice based on the latest research into online course delivery.

Technology

EDUCAUSE. <www.educause.edu>. A nonprofit organization that focuses on informa-

- tion technology in higher education. Publishes *EDUCAUSE Quarterly* and *EDU-CAUSE Review*.
- *Teens, Social Media, and Technology*: 2015. Amanda Lenhart. Pew Research. Search for this report at <pewinternet.org>.
- "Is Google Making Us Stupid?" 2008. Nicholas Carr. This article is a good starting point for a discussion about how technology contributes to the shape and size of what we write. Search for this article at <www.theatlantic.com>.
- "F-shaped Pattern for Reading Web Content." 2006. Jakob Nielsen. Classic study about the shape of Web pages and how people read on screen. <www.nngroup.com/articles/f-shaped-pattern-reading-web-content/>
- "Absolute PowerPoint: Can a Software Package Edit Our Thoughts?" 2001. Ian Parker. *The New Yorker* May 28. Good article about the history of PowerPoint and how dependent people have become on templates. Search for this article at <www.newyorker.com>.

Visual Communication and Web Design

- Shaping Information: The Rhetoric of Visual Conventions. Charles Kostelnick and Michael Hassett. Carbondale, IL: Southern Illinois University Press, 2003. Analyzes the interactions between visual language in professional communication and conventional practices by users in visual discourse communities.
- *User-Centered Website Development: A Human-Computer Interaction Approach.* Daniel D. McCracken and Rosalee J. Wolfe. Upper Saddle River, NJ: Prentice Hall, 2004. An excellent and highly readable introduction to Web design.
- Visual Explanations: Images and Quantities, Evidence and Narrative. Edward R. Tufte. Chesire, CT: Graphics Press, 1997. An essential reference for matters of graphics and critical analysis of information.

General Suggestions

Background Reading

Because technical writing is (at least by one definition) applied rhetoric, a new instructor's preparation should build on a solid foundation in classical rhetoric. For this purpose, a concise and comprehensive source is Edward P. J. Corbett's *Classical Rhetoric for the Modern Student* (Oxford University Press).

Classroom Layout

A technical writing class works best in the workshop format. In a classroom without computers, the optimal set-up will include several tables large enough for students to work in small editing groups and have plenty of room for paper shuffling. In computer classrooms, the "pod" configuration works well, with four to six computers arranged around a large table. In this environment, students are able to work together or separately on the computers while also having desk space for working with hard copies.

Scheduling

Although sometimes difficult to schedule, two meetings a week seem to work best for a workshop. Because technical writing students generally are well motivated, they will easily tolerate 75-minute classes. These longer periods provide more continuity to the small-group and full-class sessions.

Hardware

All of the exercises and activities in the textbook can be delivered in a classroom equipped with only an overhead projector (or document camera) and a permanent screen. This equipment is also useful for class discussion of student papers and other specimens.

Internet access is essential for demonstrating research techniques, analyzing publically available documents, and for accessing a course Web site or online learning management system during class time.

Learning Management Systems

Colleges and universities across the country are increasingly delivering courses, including technical writing, through distance education. Hybrid (or blended) courses, those that combine classroom and online sessions, are also increasingly popular. For these courses, a functional online learning management system (LMS) is vital. An LMS allows teachers to deliver all course materials electronically as well as to lead class discussions via forums. Private communication spaces can be created for individual students as well as teams, and students are able to upload their papers into an assignment submission tool. The advantages for an instructor are clear: less paper to manage, a convenient one-stop location for accessing student work and communicating with students, and an easy method for tracking students' progress and participation. The challenges are equally clear: developing a relationship with students, explaining difficult material, encouraging vibrant class discussion, and implementing the workshop approach. Seeking the advice of experienced LMS users will help you overcome these challenges as will workshops offered by your university's distance education unit. See the "Annotated Bibliography of Resources for Teachers" in this manual for other aids.

Guest Speakers

Invite speakers from business and industry (the director of communications at your local power company, or the head of a local engineering firm, for example). Companies that strive for good public relations, such as utilities or paper companies, are especially cooperative. Campus librarians who specialize in scientific, engineering, and business disciplines can provide students with valuable research strategies. If your campus library is equipped with a learning lab, holding a class session there is ideal.

The Workshop Approach

Workshops focus on the texts that students themselves have produced. The workshop approach operates on the premise that students can evaluate someone else's writing better than their own. Designed to take students out of their traditionally passive roles, the workshop involves them actively in evaluating and discussing writing. It helps familiarize students with the challenge of writing for audiences other than their instructor.

When first drafts or revisions are due, ask students to proofread and edit each other's assignments, using the appropriate revision checklist at the end of each chapter as a guide. Ask for a detailed evaluation of each assignment, including specific suggestions for revision. To encourage use of the handbook in Part V and the style suggestions in Chapter 11, ask students to use the correction symbols (rear endsheet) for referring the writer to specific sections for mechanical and stylistic improvements. (You also might ask them to keep a journal of their most troublesome mechanical and stylistic errors and to submit the journal periodically with a brief progress report.)

If a general reading audience is assumed, groups at each table should be heterogeneous (assorted majors). If a more specialized audience is assumed, the groups should be as homogeneous as possible. Provide a situational context for each workshop:

- For heterogeneous groups: "Assume that you are a customer, executive, or client who needs this information for [the specific purpose for which the assignment is written]. Would the information in this report fully serve your needs? Is it well presented [format, style, mechanics, usage]? What is effective about this piece? What needs improvement?"
- For homogeneous groups: "Assume you are a section head who has to approve this piece [instructions, product description, and so on], written by one of your staff, before it is published in a company manual or prospectus. What specific advice would you give the writer for revising and refining the document?"

After allowing enough time (20 to 25 minutes) for small-group editing, ask for one or two nominations for outstanding papers to be discussed by the entire class. Display these papers in class using an electronic version projected onto a large screen or a document camera and read them aloud. Invariably, other class members will have additional

insights and suggestions for improvement. By discussing a paper already recognized as superior, you can avoid damaging the writer's ego. Try the "sandwich" method: first discuss the effective components of the document, then identify weak areas, and end with an overall positive comment about the work.

Finally, ask students to revise their papers at home, applying their editors' comments, *before* they submit them to you for grading. Have them turn in both their revisions and their edited drafts.

In addition to marginal notes, require that editors provide a brief evaluation (one or two paragraphs) of the individual features of *content*, *arrangement*, *style*, and *page design*. All students initial their summaries and receive extra credit for consistently good editing.

NOTE: Expect some resistance to the workshop for the first few sessions. Initially, some students feel they have nothing useful to say about a piece of writing. But with cheerleading and guidance on your part, the whole business soon will run smoothly. In fact, once students become accustomed to this approach, you can save class time by asking them to edit classmates' papers at home.

Have students identify a specific audience and use for each assignment. To reinforce the workplace connection, begin early with samples of not-so-good writing from business and industry (memos, letters) that the class can edit together, using the document camera or an electronic document projected onto a large screen, with the software's track changes function enabled.

Here are more suggestions for helping the workshops run smoothly:

- 1. Give periodic quizzes to ensure that students have read and understood the assigned chapters. For a workshop to succeed, students need to know the assigned reading.
- 2. Ask students to specify (in writing) an audience and use for each document they submit.
- 3. Emphasize *repeatedly* that all editors should assume the role of the writer's stipulated audience.
- 4. You generally should not see first drafts. Ask students to submit their edited draft along with the final draft.
- 5. Because an uninformed audience usually is a writer's biggest challenge, heterogeneous editing groups generally are more effective than homogeneous groups.
- 6. For full-class discussion of edited documents, use only those nominated as *superior*.
- 7. Before having students revise at home, hold at least one full-class workshop on that type of document.
- 8. For variety, use a projector to show examples from time to time.
- 9. The workshop's purpose is to *actively* involve students in evaluation and thinking. Don't hesitate to call on members of the silent majority for commentary during full-class sessions.
- 10. For motivation and perspective, frequently bring in samples of real-world documents, both good and bad—or, better yet, ask your students to submit samples they've collected.

The Online Workshop

Incorporating the workshop approach into distance education classes or in online sessions of hybrid courses can be challenging, but not impossible. An online learning management system will make this task easier via creative use of group discussion forums or internal wikis. If your LMS does not include a built-in wiki, one of the free options offered on the Internet will be helpful. *Wikispaces* is a popular choice.

Due Dates for Assignments

Students should be given specific due dates for first drafts (for workshop editing) and deadline dates for all revisions. It's a good idea to impose a limit of only one revision for the assignments you have corrected. Besides preserving your sanity, this arrangement helps you avoid the role of teacher-as-proofreader.

Hard Copy and Online Portfolios

Ask each student to buy a rugged, briefcase-like cardboard folder for holding all assignments and revisions. Or have students assemble online portfolios. This collected work comes in handy during individual conferences. It also ensures that material is retrievable for those assignments that are cumulative. Teachers who grade electronically will benefit from the assignment upload tool offered in a learning management system. All drafts and final versions of assignments will be readily available to both teacher and student.

Conferences

Schedule frequent conferences. These meetings are especially important early in the semester for students selecting topics for analytical reports (or proposals), and are important late in the semester as they work on these reports. For online classes, a chat tool can approximate the conference experience, especially for discussing topic ideas and addressing specific questions students have.

Document Standards

Except for complex visuals (Chapter 12), require that all assignments be "camera-ready." Besides providing an occasion for editing and revising, standards help students to develop a sense of professionalism and to anticipate formal requirements on the job. (For complex visuals, students can submit *art briefs* along with thumbnail sketches, as shown in the text Chapter 12, page 264.)

Attendance Policy

A workshop arrangement requires regular attendance. Subtracting two points from the semester's total (see "Grading Procedure" in this manual, pages 20–22) for each unexcused absence beyond two or three helps keep everyone coming.

Working with Service-Learning Projects

A service-learning assignment enables students to apply, test, and refine their communication skills as they address a specific need in their community. This instructor's manual suggests service-learning projects in appropriate chapters.

Examples of Service-Learning Projects

In working with a nonprofit agency, students might complete these types of assignments:

- newsletters or other publicity for a local food bank
- a series of brochures and news releases for a women's center
- a training manual for volunteers at a local hospital or animal shelter
- an orientation guide for commuters to your campus
- a Web site or social media campaign for a local environmental group or other advocacy group
- a grant proposal for a social service agency
- fundraising literature for a public radio or television station
- revised and redesigned user manuals for the campus computer labs

Additional possibilities for worthwhile engagement are virtually endless.

Benefits of Service-Learning Projects

Beyond enhancing community welfare, as well as enriching "town-gown" relationships, service-learning projects benefit our students in ways such as these:

- Students gain direct experience in writing for "real-world" audiences and in collaborating on projects from an actual workplace.
- Students tend to feel motivated and to enjoy a sense of achievement from writing
 that makes a measurable difference: for example, moving readers to act or to reconsider their biases; increasing readers' knowledge, broadening their understanding,

- or winning their support on an important social issue. As opposed to writing for a corporation, writing for a nonprofit agency arguably evokes a greater sense of mission, of dedication to the organization.
- Workplace interaction calls on an array of social and interpersonal skills: for example, in negotiating entry to an organization; in learning to work collaboratively; and in navigating an organization's culture and politics.

In short, service-learning assignments introduce students to the instrumental role of communication—and to its myriad complexities—within an organization.

Avoiding the Pitfalls

Despite the promise and potential in a service-learning project, plenty can go wrong: for example, the student might lack commitment to the cause; the fit might be wrong; the client might have unrealistic or vague expectations; the student might feel isolated in the organization or lack the assertiveness and rhetorical skills to negotiate the support she/he needs to get the job done. The reputation of both a school and a program can be damaged by projects that turn out badly.

A successful service-learning experience requires substantial preparation on the part of both instructor and student. To avoid problems, consider these suggestions:

- Consult the rich array of print and online resources for service learning (beginning with those listed below), and assign selected readings for your students as well.
- Be sure the student *cares* about the organization and the issue and has a genuine sense of commitment. Allow students to choose their own agency, but try to verify that the student and the agency are a good fit in terms of social, political, and ethical outlook.
- Work closely with the agency supervisor to spell out the student's exact responsibilities, as well as yours and the supervisor's. Agree precisely on the types of assignments and tasks, deadlines, evaluation mechanisms and criteria, and sources of inhouse support and information for the student. Try to identify and address beforehand any ethical issues or conflicts that may arise, say, from the types of claims students may be asked to communicate in an agency's promotional campaign.
- Require a contract with the agency. Also, draw up a set of guidelines that describes the project in detail, answering such questions as: Why have you chosen this project? What are its benefits? What qualifies you for this work? If you're working on a team, what are your specific responsibilities? Where will you get the information you need? What equipment (software, scanners, and so on) is available? What specific document(s) will you submit to fulfill your project requirement?
- Spell out your role in this project. The extent of required faculty involvement may be excessive (say, line-by-line analysis versus "this document is too technical for the intended audience" or "it should be more concise" or "the tone is too informal"). How much feedback should you reasonably provide on drafts of a document? Faculty members should not be expected to be editors or unpaid consultants.
- Ask the student for a written assessment of the experience: what worked or didn't work, what might be done to avoid future problems, and so on.

Using the Objective Test Questions

Near the end of this manual is a bank of objective test questions that supplement the chapter quizzes. Of course, improvement in students' writing is the true measure of their progress. But an objective test at midterm or at semester's end can be useful:

- 1. For instructors who choose not to give weekly quizzes, the test helps differentiate weaker writers who have given their *best* effort from those who have given minimal effort.
- 2. Early announcement of a test is likely to motivate some students to read the book carefully, instead of merely skimming the chapters and focusing on the models.
- 3. The test itself is an occasion for students to review—and, presumably, to absorb better—key material.

To accommodate the chapter sequences used by different instructors, all test questions are organized and labeled by chapter.

Grading Procedure

An informal-contract grading system (like the one outlined on Master Sheet 1) has several advantages:

- 1. People who write on the job are not graded C+ or B–. A workplace document is deemed unacceptable, acceptable, or superior.¹
- 2. Technical students generally feel more comfortable with quantitative evaluations, that is, with the guidelines clearly spelled out. Instructors are hard-pressed to explain to students (and often to themselves) the subtle distinction between an A– and a B+. Students see the contract system as fairer, and with good reason.
- 3. These clear distinctions help simplify peer evaluation during editing sessions.
- 4. With a contract system, students can do as much or as little as they deem necessary to achieve the grade they desire.
- 5. By keeping track of their points, students know exactly where they stand at any stage in the course. This knowledge is very helpful during conferences and for planning revisions.

The following system has been used successfully and has received enthusiastic student and faculty endorsement.² You will need to adjust this system according to the number and type of assignments you include in your course.

¹For greater flexibility within this grading scheme, you might tell students they could receive a grade that falls between the numerical values listed (for example, three out of a possible four).

²Many thanks to Richard Dozier, University of Idaho, who devised the original version of this system.

Grading System and Course Specifications

On the basis of my evaluation, each assignment in this course will be classified in one of three categories:

SUPERIOR A document that meets professional requirements: worthwhile con-

tent; sensible organization; readable style; and appropriate design,

visuals, and mechanics.

ACCEPTABLE A document that satisfies most of these requirements, or one that

satisfies all these requirements, but contains a reasonable number of

mechanical errors that can be corrected easily.

UNACCEPTABLE A document that needs extensive revision to meet all the require-

ments, or that has the type or amount of mechanical, rhetorical, or

design errors that would distract readers.

Point Values for Individual Assignments

Ass	signment	Unacceptable	Acceptable	Superior
1.	Summary	U	1	2
2.	Expanded Definition	U	2	4
3.	Collaborative Project	U	1	2
4.	Visuals	U	1	2
5.	Proposal Memo	U	1	2
6.	Inquiry Letter	U	1	2
7.	Claim Letter	U	1	2
8.	Adjustment Letter	U	1	2
9.	Résumé and Application Lette	r U	2	4
10.	Mechanism Description	U	3	6
11.	Instructions	U	3	6
12.	Progress Report	U	1	2
13.	Email	U	2	4
14.	Oral Summary	U	2	4
15.	Formal Report (or Proposal)	U	8	16
	POINT TOTAL	S: 0	30	60

Point Grade Equivalents

Grade	Required Point Range
A	54–60
В	44–53
C	30–43
D	26–29
F	25 or below

The grade earned on the above scale counts for _____ percent of the final grade. Class participation, quality of editing, quizzes, and other projects count for the remainder.

Course Specifications

Success in this course calls for three essentials: (1) attending and participating *actively* in the class, (2) following directions, and (3) meeting deadlines.

Attendance

Assignments and exercises are due for almost every class session. Many classes follow a workshop format, in which we edit and discuss the writing done by you and your colleagues. Regular attendance and active participation in class discussion are therefore mandatory. For each unexcused absence beyond three, two points will be subtracted from your semester total.

General Directions

Please note that the mere act of revision does not, in itself, guarantee a higher grade. A grade will improve only when the revised version shows enough improvement to merit a higher evaluation.

For grading, drafts must be stapled to your revisions. Place your revision on top, and staple in the upper left corner. Keep all work in a folder, for review and conferences. You may revise five assignments (excluding the final report) after I've graded them. Unless otherwise instructed, submit each document with a detailed audience and use profile (as shown on page 30, Chapter 2 of your text).

Deadlines

Readings, exercises, and assignments must be completed by the dates in the syllabus. Drafts must be completed on the due date so that they can be edited and discussed in workshops. Revisions are due by the following class session. All rewrites must be turned in by_______. No late submissions will be accepted.

Because you have the whole semester to work on your final reports or proposals, I will not allow any course grade of Incomplete.

Sample Syllabi

Each syllabus offered here covers a rigorous—but realistic—schedule of activities and assignments, based on 45 class meetings.

Syllabus A—Basic Approach

If your students have little technical background (as with career-education students, first-year students in any major in two- or four-year programs, and two-year technical students who will not often be expected to write long documents on the job), you might use some version of this syllabus. Because the textbook chapters are self-contained, you can easily modify the suggested sequence to suit your goals.

Students following this syllabus will work on the long report in teams.

Syllabus B—Accelerated Approach

If your students are juniors and seniors with substantial backgrounds, or sophomores in four-year programs that require many long reports, you might use a version of Syllabus B. The workload is heavy, but the results are gratifying.

Syllabus B differs from Syllabus A in that it yields these additional assignments: project proposal, progress report, email, and oral report.

Both syllabi have ungraded exercises for the opening sessions, to get students writing early without them worrying about being penalized for poor writing.

For weeks when you need more material or activities than what is on the syllabus, consider having students do projects from Chapter 24, *Web Pages*, *Blogs and WIkis* as well as Chapter 25, *Social Media*.

Library Resources Tour

Whatever your approach, try to arrange a tour of your library resources. Since most campus library resources today are digital, a "tour" is possible without physically going to the library. You or a visiting librarian can show students how to use your library's databases and available search options as well strategies for searching the Internet effectively. Ideally, your class will be in a hands-on computer lab so that students can experiment with and receive guidance on the use of these resources.

Syllabus A

Weekly Assignments and Activities

Week	Topics and Assignments	Milestones for Final Project
I	Introduction: Discuss course goals, grading, workshop concept, team projects and final project, graphics and page-design requirements.	
	Read Chapter 1; do General Project 2 and the Team Project. See Chapter 15 for memo elements and format. Read Chapter 6; do the Digital and Social Media Project.	
2	Information Delivery: Read Chapter 2; do General Project I and the Team Project; workshop.	
	Persuasive Reasoning: Read Chapter 3; do General Projects 1 and 2.	
3	Ethical Presentation: Read Chapter 4; do General Project 2.	
	Good Teamwork: Read Chapter 5; do the Team Project; workshop. Read Chapter 7 in preparation for the research project. Begin work on the Chapter 7 General Project, Phase One. Read Chapter 21, "Typical Analytical Problems."	
4	Style: Read Chapter 11; do all exercises. Page Design: Read Chapter 13. Take a tour of library resources. Review assigned sections of Chapter 7.	List of possible topics for research project due.
5	Summarizing Information: Read Chapter 9; do General Project I and the Team Project; workshop; revised summary and abstract due next class meeting.	Topic and tentative bibliography for research project due.
	Definition: Read Chapter 17; do the Global Project and the Team Project; workshop; revised definition due next class meeting.	
6	Organizing for Readers: Read Chapter 10; do the General Project; develop working outlines for the final project. Sign up for team conferences on research project.	Tentative outline for research project due.
	Page Design: Review Chapter 13; do General Project 3.	
7	Visual Information: Read Chapter 12; do General Projects 1, 6, and 7; do the Team Project; workshops. Continue work on tentative outlines for final project.	
	Reviewing Findings: Read Chapter 8; do the General Project.	

Syllabus A (continued)

Week	Topics and Assignments	Milestones for Final Project
8	Memos and Letters: Read Chapter 15 for memo and letter parts, format, design and tone; do General Project 5 in class. Inquiry Letters: Read Chapter 15, "Inquiry Letters"; do General Project 2; workshop; revised inquiry due next class meeting; mail inquiry letters for research project.	
	Claim and Adjustment Letters: Read Chapter 15, "Claim Letters" and "Adjustment Letters"; do General Project 3 or Team Project; workshop. Begin work on Chapter 7, General Project, Phase Two.	
9	Résumés: Read Chapter 16, "Résumés"; General Project 1 and the Digital and Social Media Project; first draft of résumé due next class; workshop; revised résumé due next class.	Interview questions and questionnaire due.
10	Application Letters: Read Chapter 16, "Application Letters"; compose the application and follow-up letters in response to General Project 2; workshop; revision due next class session; workshop on outlines. Review Chapter 7 and work on General Project, Phase Two. Read Chapter 21.	Detailed outline for research project due.
П	Technical Description: Read Chapter 18; do General Projects I and 2 in class; group brainstorming workshop; do a description outline based on Team Project I; outline workshop; prepare the description; workshop; revised description due next class meeting.	
12	Instructions and Procedures: Read Chapter 19; do General Projects I and 2; do outline for instructions based on one of the Team Projects; workshop; prepare the instructions; workshop; revised instructions due next class.	
13	Formal Report: Review Chapters 7 and 8; begin work in Chapter 7 on the General Project, Phase Three; workshops on material that is volunteered.	
	Supplements: Read Chapter 22, "Front Matter and End Matter Supplements"; discussion and workshop on supplements.	
14	Research Project: workshop	First draft of research
	Documentation: Read "A Quick Guide to Documentation"; discuss various documentation systems.	report due*
15	Final Project: proofreading workshop.	Final draft of report due

^{*} If you want me to read the best draft of your report, you must turn it in at the beginning of this week.

Syllabus B

Weekly Assignments and Activities

Week	Topics and Assignments	Milestones for Final Project
I	Introduction: Discuss course goals, grading, workshop concept, team projects, graphics and page-design requirements. Read Chapter 1; do General Project 2. Read Chapter 6; do the Digital and Social Media Project.	
	Information Delivery: Read Chapter 2; do General Project 1.	
2	Persuasive Reasoning: Read Chapter 3; do General Project 2; workshop. Ethical Presentation: Read Chapter 4; do General Project 2 and the Team Project. Discuss final project (proposal or report). Read Chapter 21, "Typical Analytical Problems" and Chapter 22, "Types	
	of Proposals." Look over the General Project in Chapter 21 and General Project 3 in Chapter 22.	
	Collaborative Guidelines: Read Chapter 5.	
3	Style: Read Chapter 11; do all exercises. Read Chapter 7 in preparation for final project.	List of possible topics for final project due.
4	Summarizing Information: Read Chapter 9; do General Project I and the Team Project; workshop; revised summary and abstract due next class meeting.	Topic and tentative bibliography for final project due.
	Definition: Read Chapter 17; do the Global Project and the Team Project; workshop; revised definition due next class meeting.	
5	Organizing for Readers: Read Chapter 10; do the General Project.	Tentative outline for
	Visual Information: Read Chapter 12; do General Projects 1, 6, and 7; do the Team Project; workshop.	final project due.
	Sign up for office conferences on final project.	
6	Page Design: Read Chapter 13; do General Project 4; workshop on General Project 4.	
	Project Proposal: Read Chapter 22, "Elements of a Persuasive Proposal"; do General Project 2; workshop; revised proposal for final project due next class meeting.	
	Memos and Letters: Read Chapter 15 for memo and letter parts, format, design and tone; do General Project 5 in class.	
	Reviewing Findings: Read Chapter 8; do General Project 1.	
7	Inquiry Letters: Read Chapter 15, "Inquiry Letters"; write letter based on General Project 2; workshop; revised inquiry letter due next class meeting; mail inquiry letters for final project.	
	Claim and Adjustment Letters: Read Chapter 15, "Claim Letters" and "Adjustment Letters"; do General Project 3 or the Team Project; workshop.	

Syllabus B (continued)

Week	Topics and Assignments	Milestones for Final Project
8	Résumés: Read Chapter 16, "Résumés"; begin searching print or Web-based ads for a job you could fill once you graduate (you will submit the ad with your application letter); compose a résumé; workshop; revised résumé due next class meeting. Do General Project 1.	
	Application Letters: Read Chapter 16, "Application Letters"; compose the application and follow-up letters; workshop; revisions due next class session.	
9	Research: Review Chapters 7, 8, and 9. Progress Report on Final Project: Read Chapter 20, "Progress Reports"; do General Project 1. Read Chapter 7, "Exploring Primary Sources." Interview questions and questionnaire are due next class meeting. Workshop on final-project outlines.	Detailed outline for final project due.
10	Technical Description: Read Chapter 18; do General Projects I and 2 in class; group brainstorming workshop; do a description outline based on Team Project I; outline workshop; prepare the description; workshop; revised description due next class meeting.	Interview questions and questionnaire due.
11	Instructions: Read Chapter 19; do General Projects 1 and 2; do outline for instructions based on one of the Team Projects; workshop; prepare the instructions; workshop; revised instructions due next class.	
12	Final Project: Read Chapter 21 or 22; begin work toward a completed draft of the proposal or report; general workshops on outlines, report sections, and so on. Email: Read Chapter 14; do the General Project; workshop.	
13	Documentation: Read "A Quick Guide to Documentation"; discuss various documentation systems. Sign up for oral summaries. Supplements: Read Chapter 22, "Front Matter and End Matter Supplements"; discuss various supplements; workshops on material that is volunteered. If you want me to read your best draft of your proposal or long report, you must turn it in by the end of this week.	
14	Final Project: Workshops on completed drafts of proposals and reports, including supplements. Oral Summaries: Read Chapter 23; each student presents a tenminute summary with visuals.	
15	Oral Summaries and Loose Ends	Final revision of term project (with all supplements) is due.

PART

I

Communicating in the Workplace

CHAPTER I

Introduction to Technical Communication 30

CHAPTER 2

Meeting the Needs of Specific Audiences 36

CHAPTER 3

Persuading Your Audience 45

CHAPTER 4

Weighing the Ethical Issues 54

CHAPTER 5

Teamwork and Global Considerations 71

CHAPTER 6

An Overview of the Technical Writing Process 80

This section creates a problem-solving context for the writing challenges in later chapters. Besides offering a rationale for the course—an answer to "Why are we doing this?"—Part I promotes audience awareness and critical-thinking skills. Students learn to think critically about the informative, persuasive, ethical, global, and collaborative dimensions of their communications.

1

Introduction to Technical Communication

The main point in this chapter is that all professional writing is done for specific readers in specific situations, to communicate information that readers will use. The writer's primary purpose is not to express personal feelings or opinions—or simply to transmit factual information; instead, the writer's purpose is to shape that information for the particular uses of a specific audience. In this sense, the notion of "user-friendliness" applies not only to computer hardware, software, and documentation but also to any document written for its readers' instrumental use.

To help students understand that this is not just another composition course, spend time discussing the differences between technical and nontechnical writing. You might bring in examples of technical writing, such as operating instructions for an electric tool or appliance, and examples of nontechnical writing, such as expressive or mood pieces from popular magazines, or newspaper feature articles purportedly objective but often dripping with sentimentality. Comparing items on the same topic can be especially helpful. The tone, style, and format of a government document on fishing catch quotas will be quite different from a first-person narrative about a fly-fishing experience published in *Field & Stream*. These types of documents can easily be found on government agency and magazine Web sites, making the exercise suitable for online classes as well as in-class sessions.

Because motivation and attitude are crucial in getting students to improve their writing (research shows that students write more effectively when the subject is engaging, and when their purpose for writing is clearly defined), you might wish to amplify the section on the value of technical skills with quotations from business, industrial, and technical magazines, or by providing quotations from faculty in the business, engineering, and science departments on your campus.

Ask students for a memo based on General Project 2, identifying the kinds of communicating they will have to do on the job. Requiring students to list their own ideas before checking the Web site will add a self-reflection component to the exercise.

The Team Project works well as an early exercise in eliciting, sorting, organizing, and presenting information for specified use by a specified audience—all typical workplace tasks for a technical communicator.

For an early introduction to memos as the common medium for written communication within organizations, you might distribute copies of Master Sheet 7.

A Good First- or Second-Day Exercise

To emphasize that technical writing calls for clear, precise, and richly descriptive language, you might use this simple exercise:

Hold up a dime and ask students to describe it (without benefit of visuals or analogies) in enough detail to present a clear picture to an uninformed reader. Ask the class to ignore the dime's function, as well as the engraving on the two flat surfaces, and to concentrate only on shape, dimensions, and materials. Limit the description to 50 words.

After some grumbling and head scratching, the class will produce such specimens as "a dime is a round silver thing" or "a circular metal object." Now, begin listing descriptive features, as volunteered by the class, on the board. List everything offered. Then, after asking the class to identify the pertinent features, compose drafts of the description on the board. Working together, the class should eventually arrive at a version something like this:

A dime is a tri-layered, bimetallic disk, 11/16 inch (17 mm) in diameter, 1/20 inch (1.5 mm) thick, weighing roughly 0.07 ounce (2 g). The center layer of copper is bonded between two nickel surfaces, bordered by a 0.2-mm raised, rolled rim with a perimeter of equally spaced serrations at 0.2-mm intervals, perpendicular to the flat surfaces (or parallel to the vertical axis).

Of course, how something is described depends on the writer's purpose and the audience's needs. Technical writers name things in ways that have significance and are useful to a specific audience.

In any course, students want to know immediately what is expected of them. As a general summation of the syllabus, Chapter 1, and the course description, you might tell students that success in the course depends on their meeting three general requirements: (1) attending class regularly and participating actively; (2) following directions; and (3) meeting all deadlines. Refer to these requirements throughout the semester.

The Master Sheets in Chapter 6 of this manual will be useful for illustrating the writing process as a set of critical-thinking decisions that are deliberate rather than random, and recursive rather than linear. You might use this material early in the course or as a supplement to the Casebook beginning on page 313 of this instructor's manual.

More Early Exercises

- 1. Locate a brief example of a technical document or Web page (or a section of one). Make copies for class, or display the document or Web page from your computer. Explain to students why this item represents a form of technical communication.
- 2. Research the kinds of communicating you will do in your career. (Begin by searching online or at your library for the *Dictionary of Occupational Titles*.) Interview a member of your chosen profession or a technical communicator in a related field or industry. What

kinds of documents and presentations can you expect to produce on the job, and for what audiences and purposes? What types of global audiences can you expect? How much of your writing will be transmitted in electronic forms (via email; on a Web site or intranet for downloading; as a Web page)? Summarize your findings in a memo to your instructor or in a brief oral report to your class. (See Chapter 15 for memo elements and format.)

Online Class Activity

Write a one-paragraph description of an item without naming the item. Use clear, precise, and concise language to convey the characteristics of the item in detail. Do not discuss the item's function. Be sure to choose an item that all members of the class would be familiar with (for example, hand tools, cooking utensils, grooming implements, etc.). Post your description in the discussion forum for this activity and read all of the other posts. Respond to at least three of your classmates with a guess about their items. Explain which parts of their descriptions were particularly effective.

Service-Learning Project

Identify a community service agency in your area that needs to have one or more documents prepared. Start by looking in the yellow pages under "Social and Human Services" or "Environmental Organizations." Or look through your campus directory for campus service agencies such as the Writing and Reading Center, Health Services, International Student Services, Women's Resource Center, or Career Resources Center. Then narrow your list to an agency that interests you. Explore the kinds of documents and publications that agency produces and then write a one-page memo (see Chapter 15) reporting your findings to your classmates.

Guidelines for Memo Formatting

NAME OF ORGANIZATION

MEMORANDUM Center this label on the page or set it flush left (as shown)

To: Name and title of recipient

From: Your name and title (and initials or signature), for verification

Date: (also serves as a chronological record for future reference)

Subject: Elements of a Usable Memo (or, replace Subject with Re for

in reference to)

Subject Line

Be sure that the subject line clearly announces your purpose: "Recommendations for Software Security Upgrades" instead of "Software Security Upgrades." Capitalize the first letter of all major words. (Some organizations also use boldface for the subject line. Follow the guidelines for your workplace.)

Memo Text

Unless you have reason for being indirect (see page 347), state your main point in the opening paragraph. Provide a context the recipient can recognize. (As you requested in our January meeting, I am forwarding the results of our software security audit.) For recipients unfamiliar with the topic, begin with a brief background paragraph.

Headings

When the memo covers multiple subtopics, include headings (as shown here). Headings (see page 297) help you organize, and they help readers locate information quickly.

Graphic Highlights

To improve readability you might organize facts and figures in a table (see page 243) or in bulleted or numbered lists (see page 291).

Paragraph and Line Spacing

Do not indent a paragraph's first line. Single-space within paragraphs and double-space between.

Subsequent Page Header

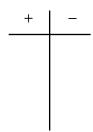
Be as brief as possible. If you must exceed one page, include a running head on each subsequent page, naming the recipient and date (*J. Baxter, 6/12/11, page 2*).

Distribution and Enclosure Notations

These items are illustrated under "Workplace Letters" (see page 343), and used in the same way with memos, as needed.

How a Document Is Evaluated

Deciding how well a document *communicates*, readers place it (and its author) immediately in the *Plus* or *Minus* column:



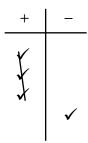
Specifically, readers evaluate your message by applying these four general questions:

- Is the document appealing?
- Is the information worthwhile?
- Is the message easy to follow?
- Is the message easy to read?

The answer to each of the above questions should be Yes:



Otherwise, your message fails. Even one *Minus* feature can erase the remaining *Plus* features:



A document is evaluated by the quality of its appearance, content, organization, and style.

Chapter I Quiz

Name	Section
Indicate w	whether statements 1–5 are TRUE or FALSE by writing T or F in the blank.
1	_ Most workplace documents are created by individuals working alone.
2	_ Technical documents are almost always designed for expert readers.
3	Given how frequently people use texting for personal communication, the informal tone we use in that context is now usually acceptable in workplace email.
4	The more you advance in your profession the more your ability to communicate is likely to become essential.
5	_ Direct, straightforward communication is valued by all cultures.
6	To produce an effective document, you generally need to complete four basic tasks: information delivery,, and
Complete	the following statement.
	are three critical thinking questions you might pose when considering infor- n you find online?
In items 8-	-10, choose the letter of the expression that best completes each statement.
8	A technical document focuses on (a) the needs of the audience, (b) the writer's feelings, (c) both the needs of the audience and the writer's feelings, (d) marketing, or (e) none of these.
9	An effective technical document is based on (a) intuition, (b) usable information, (c) the writer's deepest impressions, (d) inspiration, or (e) none of these.
10	The information in a technical document must be (a) entertaining, (b) accessible, (c) confidently judgmental, (d) prosaic, or (e) none of these.

2

Meeting the Needs of Specific Audiences

Analyzing the audience is one of the most important (and elusive) skills students can develop. In the workplace and in school, inexperienced writers often are unaware of the need to adapt a message to their audience. In their simplistic view, writing is a linear task of transferring material from the brain to the page. Without a sense of their audience, writers write prematurely—and thus ineffectively.

Spend some time on the "Assess the Audience's Technical Background" section (textbook pages 19–24), analyzing each sample to see how the level of technicality is adjusted to the audience's expectations and needs. Students with traditional composition backgrounds need practice in thinking about their readers' specific needs for clear and useful information.

Tell students you will read and evaluate their writing as an employer or supervisor would—a decision maker who requires clear information, often translated from high to low technicality. (Here is where contract grading fits in: in the workplace, a product is unacceptable, acceptable, or superior.) Have students identify an audience and use for each assignment. You might want them to include a written audience and use analysis with each submission—especially for the earlier assignments.

If you are unfamiliar with a particular specialty (such as computer science or electrical engineering), ask students planning long reports or proposals about these specialties to use you as the *secondary* reader, and to prepare the report text and supplements accordingly. For class discussion, ask students to describe situations in which they've had to explain something specialized to an uninformed audience (such as camp counselors, hobbyists, part-time employees). Or ask them to describe situations in which school lectures have sailed over their heads, and to analyze the reasons.

Students will invariably ask how long an assignment should be, often wanting to know how many pages of text to produce. A good response is that the document should be just long enough to answer all anticipated questions from the intended audience. In some cases, a page limit (for example, a one-page cover letter) or a word count (for, say, a funding proposal written in response to a particular agency's request for proposals) will be reasonable guidelines to offer. Explain that, in the absence of specific requirements, writers who can accurately anticipate their audience's questions are those who know how much is enough.

Encourage your students to participate in brainstorming sessions as a way to explore an audience's needs. At various points in the writing process, brainstorming will help students search for useful material—insights, facts, statistics, opinions, images—anything that sharpens their view of the audience ("Who here needs what?"), the problem ("How can we increase market share for Product X?"), and potential solutions ("Which of these ideas might work best?"). The aim is to produce as many ideas as possible (on paper, screen, whiteboard, or the like) from their personal inventory. Provide the following instructions:

- 1. Choose a quiet setting and agree on a time limit.
- **2. Decide on a clear and specific goal for the session.** For instance, "We need to identify the document's readers and understand their needs."
- 3. Focus on the issue or problem.
- **4. As ideas begin to flow, record every one.** Don't stop to judge relevance or worth, and don't worry about spelling or grammar.
- 5. If ideas are still flowing at session's end, keep going.
- 6. Take a break.
- **7. Now confront your list.** Strike out what is useless and sort the remainder into categories. Include any new ideas that crop up.

Although brainstorming can be done individually, it is especially effective in a group setting. Pairing up students and having them brainstorm ideas about each other's audience is a helpful exercise. Once they have characterized the audience, they can begin to focus on the types of details the audience needs.

Additionally, discuss briefly the audience and use profiles preceding sample documents (page 30 in Chapter 2 and page 56 in Chapter 3) to show how writers adjust their level of detail to audiences.

During editing workshops throughout the semester, emphasize repeatedly that every word, sentence, and paragraph should advance the writer's meaning. Chapter 11 provides basic editing tools for achieving clear and precise expression.

General Project 1 works well for students with some technical sophistication. Emphasize that the workplace communicator writes for audiences who know less about the subject than the writer (as opposed to writing for professors, who know more about the subject than the student writer). When the specialized student writes for you and heterogeneous classmates, he or she becomes the teacher and the readers become the students. Given this context, students see writing as more than throwing words down on the page as they are peeled off the top of one's head; instead, they see writing as a set of decisions based on careful consideration of subject, situation, and audience. When writers connect with their audience, they succeed; when they don't, they fail.

Master Sheet 10 offers another twist for connecting with an audience. You might want to refer to this sheet when the class works on complaint and job-application letters and justification reports.

The Chapter 2 Team Project is essential for students at any level. This project helps develop audience awareness by guiding students through their own detailed analysis of their audience's needs, attitudes, and expectations.

Use Master Sheets 12–14 to enhance class discussion in preparation for this team project. You will see that the organization and content of the Audience and Use Profile in these Master sheets differs somewhat from the textbook's examples, but the textbook itself encourages students to "modify this sheet as needed to suit your own situation (p. 28). You can use these differences as a jumping off point with your students. What differences in detail do they notice between these versions? What other ideas might they have to make this profile more useful, drawing on their own workplace or internship experiences or on a project they might be considering for this course?

Alternative Team Projects

- In one or two pages, describe the job outlook in your field (prospects for the coming decade, salaries, subspecialties, promotional opportunities, etc.). Write for high school seniors interested in your major. Your team's description will be included in the career handbook published by your college.
- 2. Identify an area or situation on campus that is dangerous or inconvenient or in need of improvement (endless cafeteria lines, poorly lit intersections or parking lots, noisy library, speeding drivers, inadequate dorm security, etc.). Observe the situation as a group during a peak-use period. Spell out the problem in a letter to a specified decision maker (dean, campus police chief, head of food service) who presumably will use your information as a basis for action.

Online Class Activity

Search the Internet for a set of instructions and classify them as technical, semi-technical, or nontechnical. Explain your classification, pointing to specific words and phrases that helped you make your decision. Provide the Web address for the page so that your classmates can access the instructions. Once all class members have posted their instructions, vote on which is most technical and which is least technical. Your instructor will post the results in your discussion forum.

Service-Learning Project

Create a one-page summary of the purpose, programs, and history of the agency you are planning to work with. Design your summary as an information flyer/fact sheet or as a brochure (textbook pages 431–434) to be distributed to first-time visitors to the agency, or to be included in grant applications or other mailings to request support.

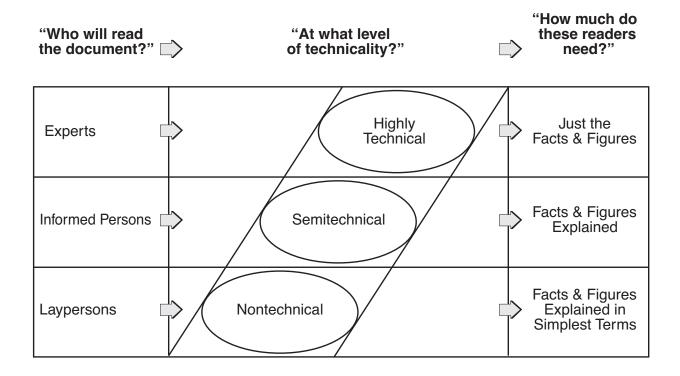
Coping with a "Dangerous" Audience

To suggest that just thinking about your audience will help solve *all* your writing problems would be naïve and misleading. Thinking about some audiences, in fact, can so intimidate writers that they "choke." This type of block is especially common when you are reporting bad or surprising news, when making a complaint or an unpopular suggestion to superiors, or when much attention is to be focused on your report. Often, the instructor-as-audience can be intimidating as well.

If for any reason you think your audience might be unreceptive, or "dangerous," try writing the first draft for yourself or for a different audience. Writing specialist Peter Elbow suggests: "For example, you can address a draft of your technical report to your loved one—even permitting yourself some of the fun and games your make-believe audience inspires." By imagining a different audience (or none at all), you can sometimes discover clearly where you stand *before* trying to connect with your real audience. Once you've discovered what to say and how to say it, adjusting the message to your real audience is easy.

¹For some excellent strategies in coping with a "dangerous" audience, see Elbow, Peter. *Writing with Power* (New York: Oxford, 1981: 187–190).

Deciding on a Document's Level of Technicality



Audience and Use Profile Sheet

Learn all you can about the audience before you communicate.

Identity and Needs

- 1. Who is my primary audience? Who else will read the document?
- 2. What is my relationship to this audience?
- 3. What is the purpose of the document (to inform, instruct, persuade, other)?
- 4. How will my document be used (to solve a problem, make a decision, other)?
- 5. What is the audience's technical background?
- 6. How much is my audience likely to know already about this topic?
- 7. What else does the audience need to know (background, definition, and so on)?
- 8. What main questions are most readers likely to have?

Attitude and Personality

- 9. What attitudes or misconceptions is the audience likely to have toward the topic? Are they likely to have any objections?
- 10. What attitude does the audience seem to have toward me?
- 11. How receptive to new ideas is this organization?
- 12. Who will be most affected by this document?
- 13. What do I know about the user's (or group's) temperament?
- 14. What reaction to this document can I expect?
- 15. Do I risk alienating anyone?
- 16. Do I face any constraints?

Expectations about the Document

- 17. Has this document been requested or am I initiating it?
- 18. What length will the audience expect and tolerate (spell it out or keep it short and sweet)?
- 19. For this audience, what kinds of details will be most important (conclusions, a summary, cost factors, how the material affects them)?
- 20. How would they expect the piece to be organized?
- 21. What tone would this audience expect?
- 22. How will the cultural context shape this audience's expectations?
- 23. What is this document's intended effect on its audience?
- 24. When is the document due?

Audience and Use Profile Sheet (continued)

Identity and Needs

My primary audience is	<u></u> .
(name, title)	
Other potential readers of this document include	<u></u> .
• The audience is related to me as a(n)	 псе
• The purpose of this document is to	·
The audience will use my document to	
(solve a problem, make a decision, answer a question, take an action, carry out a procedure, imp performance, take a stand on some issue, learn about something new, receive good or bad news, ot	
The audience probably knows	
about this topic. (nothing, very little, the general background, quite a few details)	
The audience still needs in order to understand this document. (<i>definitions</i> , <i>background</i> , <i>item-by-item explanation</i> , <i>a s</i>	— ит:
mary, only the bare facts, interpretations and conclusions spelled out, other)	
The audience is likely to have these important questions:	
	7
	?
	?
	2
ttitude and Personality	
In its attitude toward this topic, the audience is likely to be	
(indifferent, biased, misinformed, defensive, skeptical, interested, uncertain, confused, other)	
• Audience objections are likely to include	
(cost, labor, time, fear of consequences, none, other)	