Introduction to Technical Communication in Environmental Health

T Th 1:30 - 3:20   Location:  T663   SLN:  14406   Credits:  5

Instructor:  Dr. Deborah L. Illman   Email:  illman@uw.edu

Description

This course provides an introduction to the basic principles of written and oral communication in environmental health and public health disciplines. Students will have the opportunity to explore some of the genres of communication used by practicing professionals and the strategies they use to enhance the success of communications in the workplace. Writing exercises throughout the quarter will help students gain experience with key forms of communication in these fields.

Students will study techniques of effective writing for technical articles, proposals, and reports. Particular emphasis will be given to organization, clarity, and language usage through a series of exercises focusing on structure and grammar. Students will craft an executive summary of a research report for technical audiences and will then translate that content into the form of a press release that could be disseminated to broader audiences through the media and the Web.

The course is designed to build communication proficiency through a combination of writing and revising assignments, selected readings, lecture/discussion sessions, oral presentations, and hands-on activities.

Objectives

Upon successful completion of this course, students should be able to:

- Identify and strategically target a desired audience for a given communication situation.
- Create effective documents that clearly convey complex, technical information for target audiences.
- Translate information about environmental health for broader audiences in the public arena.
- Compose and revise documents with appropriate content, organization, and coherence as well as grammar, tone, and style.
- Create and deliver effective presentations, appropriate for audience, setting, and communication goal.
- Communicate effectively in interviews and in other professional, community, and policy settings.

Textbooks


**Books On Reserve:**


*On Writing Well*, William Zinsser.


**Additional Resources:**

Online grammar and punctuation exercises, https://owl.purdue.edu/owl_exercises/owl_exercises.html

Plagiarism Self Test: https://www.wcu.edu/learn/academic-success/tutoring-services/services-resources/writing-support/the-plagiarism-self-test/plagiarism-self-test/

UW Student Technology Loan Program (check out laptops, adaptors, recorders, etc) http://stlp.uw.edu/#/overview

Proofreaders’ Marks http://www.chicagomanualofstyle.org/help-tools/proofreading-marks.html


Course Policies

**Participation.** One aim of this course is to provide students with an experiential learning opportunity that will prepare them for the professional workplace. An important component of this experience is class participation and contribution to classroom discussions. Many of our graded activities require your presence in the classroom. You are expected to attend class, complete the assigned readings, and be prepared to participate in the discussions and workshops. Attendance at all of the sessions—including lectures, guest presentations, and student presentations—is required. Cell phones must be turned off and put away during all class sessions.

If you cannot attend class, please contact the instructor, in advance if possible, to make arrangements to make up work, and you should plan to catch up on what happened with a classmate. You are responsible for all material covered in class. Updates and additional information may be emailed to the class email list. You should check your UW email account for announcements.

**Assignment Submission & Evaluation.** The ability to meet deadlines and format requirements is essential for professional work. Writing to length and writing to deadline are valuable skills you will practice in this course. Assignments are due as specified in the course syllabus and/or in class. In the event of illness or emergency—or other unavoidable events, at instructor's discretion—please make arrangements for making up work or setting alternate due dates.

Written assignments are due at the beginning of class on the specified due date. Late assignments will be marked down one point for each day the assignment is late. Students must give oral presentations on their scheduled day; if they do not, they will receive a zero for that presentation unless they have made arrangements at least one day in advance of the scheduled presentation. Students are responsible for previewing/testing their own slides prior to presentation day. If needed, technologies for that purpose may be checked out from the student technology loan program—see "Additional Resources" on previous page. Written assignments generally will be evaluated based upon content, organization, and grammar/mechanics. Specific criteria for each assignment will be discussed in class. Oral presentations will be evaluated based upon content, organization, delivery, and quality of visual aids (see syllabus p. 12) and especially on the appropriateness of these elements for the target audience (technical or general audience).

**Academic Integrity.** Students at the University of Washington (UW) are expected to maintain the highest standards of academic conduct, professional honesty, and personal integrity. The UW School of Public Health (SPH) is committed to upholding standards of academic integrity consistent with the academic and professional communities of which it is a part. Plagiarism, cheating, and other misconduct are serious violations of the University of Washington Student Conduct Code (WAC 478-120). We expect you to know and follow the university’s policies on cheating and plagiarism, and the SPH Academic Integrity Policy. Any suspected cases of academic misconduct will be handled according to University of Washington regulations. For more information, see the University of Washington Community Standards and Student Conduct website.

**Access and Accommodations.** Your experience in this class is important to us, and it is the policy and practice of the University of Washington to create inclusive and accessible learning environments consistent with federal and state law. If you experience barriers based on a disability or temporary health condition, please seek a meeting with Disability Resources for Students (DRS) to discuss and address them. If you have already established accommodations with DRS, please communicate your approved accommodations to your instructor at your earliest convenience so we can discuss your needs in this course. Disability Resources for Students (DRS) offers resources and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions. Reasonable accommodations are established through an interactive process between you, your instructor(s) and DRS. If you have not yet established services through DRS, but have a temporary health condition or permanent disability that requires accommodations (this can include but not limited to; mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact DRS at 206-543-8924 or uwdrs@uw.edu or disability.uw.edu
Note: Readings assigned on a given day are for use in subsequent classes.

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Topic</th>
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<tr>
<td><strong>Week 1</strong></td>
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| Class 1 1/8 | **Introduction to the Course**  
**Intro exercise**  
**Grammar Inventory**: Exercise #1 |
| **Reading**:  
*Reporting Tech Info*:  
Ch 1 Overview of Technical Writing  
Ch 2 Composing  
Ch 3 Writing for Your Readers  
Appendix A: Handbook pp573-604  
*Bare Essentials* Ch 4-7  
Sentences, Fragments, and Run-Ons and self-paced exercises therein |
| Class 2 1/10 | **Ex. #1 Due**  
**Professional Communication in EnvH/PH**  
**Assignment**: Case Study in Professional Communication--Personal Reflection on Interview Summaries (1-2pp max) |
| **Reading Assignment**:  
*Reporting Technical Information*  
Ch 4 Achieving a Readable Style  
Ch 12 Planning Correspondence and Email |
| **Week 2** | |
| Class 3 1/15 | -- **BRING HOU P BOOKS TO CLASS**--  
**Personal Reflection Due**: 1 hard copy  
**Writing in the Workplace**  
**Assignment**: Letter, Houp Ch12, Ex. 5, p. 337  
**Case Study Project**: Data Coding in Teams |
| **Reading Assignment**:  
*Reporting Technical Information*  
Ch 5 Writing Ethically  
Ch 6 Writing for International Readers  
Ch 11 Creating Tables and Figures  
*Bare Essentials* Ch 16-18  
Punctuation |
| Class 4 1/17 | **Letter assignment due**: 1 hard copy  
**Writing for Technical Audiences**  
- Research Publications & Technical Reports  
**Analyzing, Displaying, & Reporting Results**  
**Assignment**: Ex. 4 Table Charts & Graphs |
| **Reading Assignment**:  
*Reporting Tech Info*:  
Ch 10 Main Elements of Reports  
Ch 15 Empirical Research Reports |
| **Week 3** | |
| Class 5 1/22 | **Coding Sheets Due**  
**Structure in Technical Writing**  
**The Executive Summary**  
**Assignment**: Write an Executive Summary  
**Ex. #3 In Class**: Commas, Semicolon, Verbs |
| **Reading Assignment**  
Gopen & Swan article--on Canvas  
*Bare Essentials* Ch 8 & 9  
Modifier Problems; Parallel Construction |
<table>
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<tr>
<th>Week</th>
<th>Date</th>
<th>Assignments/Due Dates</th>
<th>Reading Assignments</th>
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| Class 6 1/24 | **Assignment Due:** Ex 4 Tables, Charts & Graphs  
Clarity & Style in Technical Writing  
Writing & Editing Processes  
Assignment: Teams tally case study results |  |

### Week 4

| Class 7 1/29 | Executive Summary Due- turn in 1 hard copy  
**Assignment:** Ex. #5--Short Research Report  
EnvH & PH in the Public Arena  
**Assignment:** Ex. #6 News Summary | **Reading Assignment:**  
*Explaining Research*  
Introduction (pp.1-13)  
Part IV (pp. 248-340)  
*EnvH & PH in the Public Arena*  
Writing for Broader Audiences |

| Class 8 1/31 | Ex. #6 News Summary Due  
Discuss Executive Summary  
**Assignment:** Revise Exec. Summary  
Case Study Project: Progress Report  
EnvH & PH in the Public Arena  
Writing for Broader Audiences | **Reading Assignment:**  
*Explaining Research:*  
Chs. 8-10 (pp. 97-133)  
Ch. 15 (pp. 172-193)  
*Selling Science:* Ch 1 (Canvas) |

### Week 5

| Class 9 2/5 | Revised Exec Summary Due  
Short Research Report Due  
The Press Release Interviews  
In-class: Planning to Write the Press Release | **Reading Assignment:**  
Press Release checklist and examples on Canvas |

| Class 10 2/7 | **Group Interview:** Speakers TBA  
**Assignment:** Draft a Press Release based on the in-class interviews and the research papers |  |

### Week 6

| Class 11 2/12 | **Draft Press Releases Due**  
Effective Explanations  
Oral Presentations  
**Topic Assignments** for Presentations  
Discuss short report | **Reading Assignment:**  
Chapter by Rowan on Effective Explanations in *Communicating Uncertainty*  
(On reserve)  
*Reporting Technical Information*  
Ch 19 Preparing Oral Reports |
| Class 12 2/14 | **Discuss Press Release Drafts**  
Workshop: **Headlines**  
**Assignment:** Revised Press Release  
**Case Study:** Progress Report re data tables  
**Ex. #7 In Class** --Colon; Modifiers; Parallelism |
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<td><strong>Week 7</strong></td>
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| Class 13 2/19 | **Technical Presentations**  
**Ex. #8 Public Information Flyer:**  
Work in teams |
| Class 14 2/21 | **Revised Press Release Due**  
**Technical Presentations** |
| **Week 8** | |
| Class 15 2/26 | **Ex. #8 Public Information Flyer Due**  
(1 hard copy; include both team members’ names)  
**Technical Presentations** |
| Class 16 2/28 | **Draft Final Report Due--1 hard copy**  
**Technical Presentations** |
| **Week 9** | |
| Class 17 3/5 | **General Presentations** |
| Class 18 3/7 | **General Presentations** |
| **Week 10** | |
| Class 19 3/12 | **Case Study Final Report Due.** Turn in 1 hard copy and email Word files to instructor  
**General Presentations** |
<p>| Class 20 3/14 | <strong>Course Overview</strong> |</p>
<table>
<thead>
<tr>
<th>Due Date</th>
<th>Assignment</th>
<th>Pts.</th>
<th>Combined Weight</th>
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<tbody>
<tr>
<td>1/10</td>
<td>Ex. #1 Grammar Inventory</td>
<td>3</td>
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<tr>
<td>1/17</td>
<td>Ex. #2 Business Letter (Houp Ch12, Ex. 5, p. 337)</td>
<td>3</td>
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<td>1/22</td>
<td>Ex. #3 Commas; Semicolon; Verbs</td>
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<tr>
<td>1/24</td>
<td>Ex. #4 Tables, Charts, and Graphs</td>
<td>4</td>
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<tr>
<td>1/31</td>
<td>Ex. #6 News Summary</td>
<td>3</td>
<td>30%</td>
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<tr>
<td>2/5</td>
<td>Ex. #5 Short Research Report: Mining Study</td>
<td>7</td>
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<tr>
<td>2/14</td>
<td>Ex. #7 Colon; Modifiers; Parallel Construction</td>
<td>3</td>
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<tr>
<td>2/26</td>
<td>Ex. #8 Public Information Flyer</td>
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**Exercises and Short Assignments:**

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<th>Due Date</th>
<th>Assignment</th>
<th>Pts.</th>
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<tr>
<td>1/29</td>
<td>Draft Executive Summary</td>
<td>10</td>
<td>20%</td>
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<tr>
<td>2/5</td>
<td>Revised Executive Summary</td>
<td>10</td>
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<tr>
<td>2/12</td>
<td>Draft Press Release</td>
<td>10</td>
<td>20%</td>
</tr>
<tr>
<td>2/21</td>
<td>Revised Press Release</td>
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**Professional Writing Products:**

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<th>Due Date</th>
<th>Assignment</th>
<th>Pts.</th>
<th>Combined Weight</th>
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<tr>
<td>1/15</td>
<td>Personal Reflection on Interview Summaries (1-2pp max)</td>
<td>5</td>
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<tr>
<td>1/22</td>
<td>Coding Sheet</td>
<td>5</td>
<td>20%</td>
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<tr>
<td>2/28</td>
<td>Draft Case Study Report (see syllabus p. 8 for report format)</td>
<td>5</td>
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<tr>
<td>3/12</td>
<td>Final Report --Turn in the marked up draft report along with 1 hard copy and email the Word file to instructor.</td>
<td>10</td>
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**Case Study in Professional Communication:**

<table>
<thead>
<tr>
<th>Due Date</th>
<th>Assignment</th>
<th>Pts.</th>
<th>Combined Weight</th>
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<tr>
<td>2/19, 21, 26,28</td>
<td>Technical Presentation  5 minutes with PowerPoint slides Turn in one hard copy of slides at beginning of talk.</td>
<td>5</td>
<td>10%</td>
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<tr>
<td>3/5,7,12</td>
<td>General Audience (journalists &amp; public)  2 minutes, no slides</td>
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**TOTAL**

|            |            | 100  | 100%            |
Case Study in Professional Communication

We have discussed in class how writing in the professional workplace may differ from the kinds of writing you have done in the past in the academic setting. In chapter 1 of your textbook, Reporting Technical Information, the authors outline eight basic differences between professional writing and writing in school. Now, students will have a chance to explore in more detail how environmental health and public health professionals use written communication in the workplace and how to enhance the success of writing processes and products.

Students will have the opportunity to read and reflect upon a set of interview summaries of professionals in the field obtained by previous EnvH 320 students. We will give attention in these interview summaries to written communication products and processes, directed toward the research questions presented on the next page (see syllabus p. 9). Students from previous classes administered open-ended, oral interviews by telephone or in person, and then they prepared 1-2 page summaries of the information provided by interviewees.

After reading the summaries, students will write a personal reflection about what they have learned from these accounts. For example, what made the greatest impression on you? What if anything surprised you? What kind of insights have you gained about these jobs and how writing tasks are conducted in the workplace? (2 pp max)

In the next phase, students will analyze the data in teams and tally the results. Each team member will receive a copy of the raw data tables to use in preparing his or her own 2-page report about the findings.

Data Analysis and Report

- Students will work in teams to code the information in their interview summaries, producing data sheets that will be shared with the class. The instructor will collect all sheets and distribute the set to class members. Students teams will then tally the information from all of the data sheets to generate raw data tables.

- Each student will receive a copy of the team’s data tables and will write his/her own individual final report. The document should be structured as a research report with introduction, approach, results, and conclusions contained in the body of the text, and the tables and charts all presented in an appendix, as indicated below.

- Please indicate the name of your data analysis partner in your report.

- Structure of report: Text with sections on Introduction, Approach, Results, Conclusion (2-3 pp. max), plus the Appendix with Tables/Graphs (2-3 pp. max)

- Results should cover
demographics;
importance of writing;
writing products;
writing process;
obstacles; and
strategies for success.

- Students will need to decide on the appropriate kinds of tables and charts needed to display their data. All tables and charts should be contained in the appendix (not in the body of the text), and they should be numbered and given titles and captions. Results should be described and interpreted in the report text, making mention of the particular table number or figure number when discussing particular results.

- Draft Report: Turn in one hard copy.

- Final Report: Turn in the marked up draft along with one hard copy and email Word file to instructor.
Research questions

1. Interviewee name; Organization name; Job title & Job description; Educational background.

2. What role does writing play in your job? Would you rate its importance as high, medium, or low?

3. What are some typical examples of specific writing products that you generate (~2-3 examples)?

4. Describe the writing process:
   a. Who decides what needs to be written? Who decides specifications for the product?
   b. Who drafts the document? Who reviews the document? Who has final approval?
   c. How is the document disseminated?

5. What are some of the challenges or obstacles you face relating to writing in your job?

6. What strategies enhance the success of writing in your job?
Executive Summary

The reading in your textbook, Reporting Technical Information, discusses the function of the executive summary for a research report and describes the elements and structure it should have.

Audiences for an executive summary may include specialists and interested non-specialists, management, policy-makers, stakeholders, and industry and NGO representatives.

Now, you will be assigned one of two research papers (download from Canvas) as the subject of your executive summary writing assignment.

The summary should fit to one page only. The structure of the summary should follow the structure of the research report: introduction, methods, results, conclusions. The nature and amount of detail included in the summary should be appropriate for the audiences of the document.

You should write in third person (e.g. the researchers did this, the team did that, etc.), and be sure to use your own words.

It should be made clear to readers that you are the author of the summary, and that the summary author was not involved in the research. Therefore, give the document an appropriate heading ("Executive Summary by Your Name") followed by the full reference information for the paper (paper title, authors' names, journal name, volume, pages, year).

Format:

450 words. Must fit to one page only.

Use 11 pt font, Times New Roman

1-inch left, top, & bottom margins, and 2-inch right margin.

Please turn the line numbering on and use paragraph indents. No subheads.
Press Release Assignment

This is a simulation involving hypothetical scenarios.

You are a public information officer for the organization pertaining to the research paper you used in the executive summary assignment. The goal is to create a press release consistent with the premise of the hypothetical scenario and the press release format discussed in class (see checklist and examples on Canvas.)

You will have an opportunity in class to interview one or more authors of the research paper. Come prepared for that session with a list of questions to ask during the group interview.

The press release should be no more than 2 pages and should follow the "inverted pyramid" news structure and layout discussed in class. It should be accessible to broader audiences, including journalists, lawmakers, and members of the interested public.

Topic 1  Guest Speaker: Hao Wang

"Cadmium Exposure Impairs Cognition and Olfactory Memory in Male C57BL/6 Mice," Hao Wang, Liang Zhang, Glen M. Abel, Daniel R. Storm, and Zhengui Xia, Toxicological Sciences, 161(1), 87–102 (Jan. 1, 2018).

- Today is Dec. 22, 2017. You are a public information officer for the UW, and you’re preparing a press release to send out on Dec. 28, 2017, embargoed until Jan. 1, 2018, when the paper is published in the journal.

Topic 2  Guest Speaker: TBA


- Today is July 1, 2017. You are a public information officer for UW, preparing a press release for distribution on July 3, 2017, for immediate release, when the paper is published online.
**Oral Presentations**

- Students will have the opportunity to deliver two very different talks about the same assigned topic. Topics have been selected from the current research literature; many of the papers involve researchers from DEOHS or other UW departments.

- One version of the talk will be geared for an audience of science specialists, while the other will be aimed at the general public and lawmakers. By preparing these different treatments, students gain practice in audience analysis and in tailoring communication for a particular audience, goal, and setting.

- Students may not read either of these talks, but rather, must deliver them in a conversational manner.

- Students are required to attend all of the oral presentations by their classmates. The presentations help expand students' knowledge about cutting-edge work in the field while helping them to learn about the factors that affect the quality of oral presentations and visual aids. They will have the opportunity to develop professional skills by learning how to provide constructive feedback to presenters.

**Technical Presentation (5 Minutes, with PowerPoint slides).**

Create a 5-minute talk with appropriate PowerPoint slides geared for a scientific audience and meeting the criteria described below. Practice the talk several times to perfect timing and flow. Students are responsible for previewing/testing their own slides prior to presentation day. Laptops and adaptors for this purpose may be checked out from the UW Student Technology Loan Program. **Submit a hard copy of your visual aids to the instructor at the beginning of your talk.** All presenters should prepare to field a few questions from the class.

**General Audience (2 Minutes, no slides).**

This 2-minute presentation should be geared for general audiences, e.g. community members, journalists, educators, industry representatives, etc. You may not use any slides for this presentation.

**Criteria for evaluating the effectiveness of oral presentations:**

**Content and Organization.** Completeness, accuracy, and appropriateness for the stated purpose and audience. Level of detail that suits the oral medium, format, and the time constraints. Structure suitable to purpose and audience, and revealed verbally and/or visually through the use of overviews, transitions, and summaries.

- Attention-getting opener.
- Clear purpose statement.
- Overview of main points.
- Information level suited to the audience.
- Detail appropriate for the oral medium.
- Detail appropriate for the time constraint.
- Effective transitions.
- Examples where appropriate.
- Summarize main points at end (no new info).
- Take-away(s) and graceful closing.

**Delivery.** Appropriateness for purpose and audience (e.g., level of formality, engagement, persuasiveness). Fluency of movement and speech (e.g., gestures, articulation, pace, volume, tone).

- Enthusiasm and professionalism
- Eye contact with the entire room
- Natural gestures and movement
- Clearly articulated speech.
- Spoken conversationally; no reading of notes.
- Appropriate speaking pace & volume.

**Visual Aids.** Access and visibility, given the communication context. Adherence to effective design principles. Appropriateness for the stated purpose and audience. Effectiveness of the integration into the presentation.

- Easy to see—visible from all parts of room.
- Appropriate fonts, color, layout choices.
- Simple and uncluttered. Appropriate graphics.
- Appropriately introduced and interpreted.
Clean-up of Low-Level Radiological Contamination at Magnuson Park

This flyer, addressed to "Current Resident," was received through the mail at a North Seattle location.

1. Identify some of the audiences likely receiving the document. Assess its overall effectiveness in meeting the needs of the audiences. Include issues of cross-cultural communication in your analysis.

2. Analyze elements of the content, organization, and design / layout:

a) What are the "chunks" of information presented to the reader? In what order is this information presented? How effective is this order?

c) If readers did not know anything about Magnuson Park and/or its radiological contamination prior to receiving the flyer, what would they understand from this document?

d) How effective are the section headings?

e) Analyze the accessibility of terminology and concepts viz. the likely intended audiences. Are there unfamiliar terms? Familiar terms used in unfamiliar ways? Are definitions provided?

f) Characterize the writing style and tone.

g) How easy is it to use this document? How clear are the illustrations and graphics?

- The four-page folded piece contains a double-sided, loose insert. The comment form, meant to be returned, is the third panel of the folded piece. Assess the practicality of this approach.

h) What questions would be raised in readers’ minds after seeing this document? What impression does it leave? Are there unanswered questions? Should information be added or omitted?

i) How well would this document motivate readers to carry out the action(s) that the piece is soliciting, i.e. writing and sending feedback and/or attending the public meeting?

3. How could the mailer be improved?

Revise and redesign the Magnuson Park mailer to fit on both sides of one 8.5" x 11" sheet, and figure that one half of the outer side is needed for postal info as shown. Assume that the flyer will be folded in half along the dashed line when it is mailed out.

Develop a "mockup" containing the revised content and layout. Edit and condense the text, and make any changes you think are needed to the content, organization, and style. Turn in one hard copy of your revision with all team members’ names on it.