CSE/ISE 300 Technical Communication (Spr. 2014)

• This is an undergraduate course on Technical Communication for Computer Science and Information Systems. The focus of this course is on writing technical documents for the computing field and presenting oral reports. Besides writing and correcting documents, this course will include lectures on topics of English style, proper word usage, and composition rules. In particular, we will spend a fair amount of time in class writing first drafts of documents, which will be corrected before they are submitted for grading.
CSE/ISE 300 Writing

• This is a 3 credit course for which you will receive a grade from among A, B, C, D, or F. The grade will be based upon scores from in-class exams, writing exercises, and oral presentations plus papers submitted for the course. Three papers of sizes 1 page, 2 pages, and 4 to 6 pages are planned. Each person will give a 8 minute report with slides plus write a resume. The in-class exams and exercises will determine 15% of your course grade. The three papers and the oral report together will count for 75% of your grade, the resume for 5%, and class participation for 5%.
CSE/ISE300 Communications S14

- Location: Room 2205 Computer Science, 2nd floor, Multimedia Lab
- Time: Tue/Thur 5:30-6:50PM
- Instructor: Professor Larry Wittie
- Office/Lab: Room 1308 Computer Science, 1st floor, Network Lab
- Office Hours: 4:10-5:25+7-7:15 pm Tu/Th, if door is ajar, or by appointment
- Phone: 632-8750 (not 2-8456)
- Email: lw@ic.sunysb.edu or larry.wittie@stonybrook.edu, not both
- Course Homepage: http://www.cs.sunysb.edu/~lw/teaching/cse300
Texts & Materials For CSE300

• Bring paper and writing pens to each class. There will be frequent writing in class as well as outside.
• Strunk and White is a 90+ year old classic reference on English style. It has a detailed index and glossary. Read it and keep it handy for times when an easily confused word or phrase occurs in your writing.
• McMurrey is a free on-line technical writing text.
• Pfeiffer is a highly recommended text on technical writing and oral presentations. It has many examples. Many lectures will be based on material from Pfeiffer.
1. Know your purpose
2. Know your targeted audience
3. Organize content for your purpose and audience
4. Write clearly and precisely
5. Use uncluttered page design
6. {Think visually - that is what people remember}
7. Write ethically

Slides based on Pearsall: The Elements of Technical Writing
CSE/ISE 300
Know your purpose

Whether an email, a resume or a long report, the basic purpose of any technical writing is:

1. To inform
   Cray has a new style of supercomputer for sale
     OR

2. To argue
   The new multithreading hardware developed for the Cray MTA-2 supercomputer will be copied by many other computer makers before 2015.
CSE/ISE 300

Know your targeted audience

Their concerns and characteristics
- Laypersons - learn from background & simple graphics
- Executives - skim summaries & graphics to decide fast
- Technicians - want practical, how-to-do-it information
- Experts - want theory of how & why plus results in graphs
- Mixed audiences - levels, departments or companies differ

Their education and experience
- What vocabularies and knowledge of existing techniques

Their likely attitudes to your purpose and content
- Pro – give good reasons for what they already plan to do
- Con - write very convincingly with strong arguments
Organize content for your purpose and audience

List assumptions before you start to write a report

My purpose
Readers’ concerns, education & likely attitudes

Choose the level and amount of content needed to fulfill your purpose and readers’ needs - no more.

Common schemas for reports – plus a sample topic

Answers to questions on a defined topic - backup power
Chronology of events - actions to fix the file system crash
Classification from whole to components - a chip fab lab
Mechanism - Overview, Component details, How it works
A paper - Abstract Background Details Results Conclusion

Make an outline as you organize report contents
Write clearly and precisely

1. Paragraph often to help readers - intro & details
2. Use the right vocabulary for your readers
3. Prefer active voice sentences - subject acts
4. Use active verbs not passive nouns from verbs
   - the technicians must receive training in proper use of ... 
   - train the technicians to use ... 
5. Keep it Simple (KISS) (“Eschew Obfuscation”)
   - Subject verb sentences
   - Reasonably short sentences
   - Positive statements - is not ready until => is ready when
   - Short noun strings - not well head gas price controls
   - Parallelism - all nouns; not noun, infinitive, when clause
     chest pain, fainting, shortness of breath
     chest pain, to faint, when you feel short of breath
CSE/ISE 300

Use uncluttered page design

1. Provide headings
2. Use headers and footers
3. Choose proper type size and font
4. Use lists and tables
5. Use emphasis sparingly
6. Leave ample white space

Margins - 1.25 in. each for 8.5 in. US Letter
Medium line lengths (50-70 characters) - 60
Proper spacing - space + a half for your papers
CSE/ISE 300

Think visually - that is what people remember
{Little room in short essays but key in talk slides}

1. Photographs
2. Drawings
3. Process charts (flow charts)
4. Data in tables and graphs
   - Uncluttered
   - Suited to readers
   - Interpreted by notes, captions, legends, text
   - Placed near text discussion of data
   - Numbered in order with short titles
   - Pleasing to view
   - Legible
   - Truthful
Write ethically

Do not suppress unfavorable data
Do not exaggerate favorable data
Do not manufacture data
Do not create false implications: averaging out bad news
Do not plagiarize
Do not present misleading graphs: just showing peaks
Do not lie
CSE/ISE 300 Assignments

Download using cse300 website link and read: 11 pages
science_of_scientific_writing.pdf A quiz will follow.

Read required text Elements of Style cover-to-cover: 95 pages.

I. ELEMENTARY RULES OF USAGE 1
II. ELEMENTARY PRINCIPLES OF COMPOSITION 15
III. A FEW MATTERS OF FORM 34
IV. WORDS AND EXPRESSIONS COMMONLY MISUSED 39
V. AN APPROACH TO STYLE {With a List of Reminders} 66
VI. AFTERWORD 87
VII. GLOSSARY 89
VIII. INDEX 97