

**Notes, Rules, and Tips on Technical Writing for Earth Science Students**  
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- (1) Follow directions, read them carefully, follow the prescribed outline.
- (2) Do NOT use, AVOID, personal pronouns in technical and scientific writing

Examples include you, we, they, he, it;

incorrect e.g. Given the recurrence interval, we are subject to flooding once every 3 to 5 years.

correct e.g. Given the recurrence interval, the Willamette River is subject to flooding oncer every 3 to 5 years.

- (3) Avoid long sentences with multiple commas, use comma splices sparingly. This will avoid the tendency for run-on and difficult to read sentences.

- (4) DO NOT use common jargon or vernacular.

Examples include "big suckers", "pretty big", "hung up", "quake", "this stuff", "picky", "chewed up", "lots more", "smashed", "yunz ain't got none"

- (5) Avoid repititious phrases and words. Avoid using a word multiple times in the same sentence or paragraph.

e.g. The recurrence interval for flooding **increases** as the rainfall **increases**. This is because there is an **increase** in evaporation as population **increases** with **increasing** birth rate. The net long term result is **increased** insanity because of the **increasing** overuse of the word "**increase**".

- (6) Make sure sentences in a paragraph are related by topic, and properly grouped together. In other words, outline and organize your thoughts.

- (7) Word process your work, use a spell checker and grammar checker when finished writing. There is no xcuse for miss-spelled werds in this dey and eige.

- (8) Double space all work so that the instructor can edit and comment.

- (9) Do not use, avoid using the following symbols as punctuation: -- ... /

- (10) Parentheses must be used in pairs, not singly.

- (11) Follow the prescribed format for section titles, subheadings, and references cited.

(12) Use quotation marks only when formally using a verbatim quote from another individual or publication. Do not use quotes with jargon words in the context of scientific writing, or for making up new words.

correct e.g. "Four score and seven years ago"

incorrect e.g. Subduction zone earthquakes are typically of very large magnitude and low frequency. Thus "sub-quakes" are very deadly when they strike.

(13) Avoid parenthetical statements. Instead, use proper punctuation and sentence structure.

incorrect e.g. The 1996 earthquake was very large magnitude (and totally smashed half of the city).

correct e.g. The 1996 earthquake was very large magnitude, negatively impacting greater than 50% of the urban area.

(14) Do NOT use "etc..." when writing or answering questions on an exam. "Etc..." means nothing to the reader and reflects poorly on student understanding of the subject.

(15) Avoid use of indefinite articles like "this", especially if you use them repetitively in a sentence or paragraph. It's confusing to the reader what "this" you are referring to.

(16) Avoid bullshit sentences that make no sense to the reader. If you don't understand a particular aspect of a topic, or are just trying to fill in blank space, leave it out.

E.g. "Up stream from the dam, what would be the fate of the sediment that has accumulated behind the dam, and then downstream what would be the rate of transport, propagation, and evolution of sediment wave; effects on channel morphology."

(17) Read your report aloud to yourself or a friend at least three (3) times after you are finished writing. If the text does not properly flow when you read it aloud, there are likely severe grammatical problems that will require editing. If you can't read it, why would I be able to read it? If your writing is an awkward, poorly structured mouthful, it will become clear when you read it aloud.

(18) Visit the campus writing center for help with organizing and grammatical construction of your work. A composition and technical writing course are strongly recommended for all science majors and minors. Writing is a critical component of any professional employment situation that I can think of, it requires practice and work!

(19) Avoid the use of "what", "how", "when" question phrases within in context of a statement (i.e. avoid statements that have questions in them). E.g. "The issue being that many states have old dams and what to do with them?" or E.g. "Up stream from the dam, what would be the fate of the sediment that has

accumulated behind the dam, and then downstream what would be the rate of transport, propagation, and evolution of sediment wave; effects on channel morphology."

(20) Don't use the term "alot", it doesn't sit well in a scientific report. Try terms such as "many", "numerous", "a great number", etc.

(21) Avoid unwieldy, run-on sentences. E.g. "The problem today is that several small towns are now located in the area and the canyons where the radioactive waste was deposited gets carried down the canyons during flash flood events and into the Rio Grande river, which is a river that drains from the Colorado Rockies to the Gulf of Mexico, near the northern part of Mexico."

## **Plagiarism and Writing**

A significant component of research papers involves incorporating others written work into your product. There is a right way and wrong way to approach using others work. The wrong way includes directly copying text from a source, without recognizing where the information originated (this includes internet web sites!!!). In doing this, you are violating federal copyright laws and are being a lazy slouch who can't think for him/her self.

The methods of "paraphrasing" and "author citation" are the best way to avoid direct plagiarism when writing a term paper. The paraphrasing method involves: (1) reading the original work, (2) taking notes on the key terms and concepts, and (3) re-organizing and re-wording the work in your own voice. The author citation method allows a writer to use other's ideas and work, on one critical condition, that the writer cites and recognizes the original author's contribution. Information sources that require paraphrasing and author citation include: text books, journal articles, government publications, internet web sites, encyclopedias, magazines, and newspaper articles. Plagiarism on term papers can be readily avoided by using the paraphrasing and author citation methods. Directly copying other's written material will be considered "cheating" and will be referred to the university administration for disciplinary action (this specifically includes directly copying text from web sites).