GRADING SCHEME FOR PAPERS/REPORTS

The length of the papers should be a minimum of 10 (maximum of 15) typed pages (double space, TIMES-12 point). Figures, Tables, and References are extra.

1. REFERENCES (15%)

THREE OR MORE SHOULD BE REPORTS IN REFEREED JOURNALS (see last page for list). You should start with review papers in non-refereed publications and work back to find key facts, etc. in refereed journals. Refereed journals contain papers that have been read and criticized by experts before acceptance in the journal, and usually are rewritten before publication based on the reviews (referees' comments). You can tell them because they carry the dates of both submission and acceptance for publication, and often have extensive reference lists. They are, however, likely to be more specialized than those in non-refereed publications.

WEB SITES ARE NOT REFEREED CITATIONS. Give full web site address and date of access.

2. FORM and MECHANICAL PRESENTATION (15%)

The paper should be nominally 20 pages long including figures, tables, and references. There should be a minimum of 15 pages of text and in no case should the total length of the paper exceed 30 pages. Use double spaced, 12-point type with 1-inch margins on the sides, top, and bottom. Refer to your illustrations in the text and cite their source in the figure caption.

3. LOGIC AND CONTENT (40%)

Think about considering multiple hypotheses, evaluating them as to likelihood of being correct, about methods of observation, including how the data were collected, possible errors, and how these influence conclusions.

4. ANALYSIS and CONCLUSION (30%)

Include the significance for the future, critical factors that are not known, and suggestions for research reflecting critical needs. "Further research is required" is not an acceptable conclusion without specifics. The synthesis should demonstrate your understanding of the vital factors. This is where you put it all together.

QUOTES AND REFERENCES

Quote and reference key facts, figures, tables, and statements. Do not use the footnote reference style in scientific writing. Instead, indicate the ideas, statements, or facts that are not your own in one of two ways:

1. If you are QUOTING DIRECTLY, use quotation marks. At the end of the quote, in parentheses, write the last name of the author, year of publication, and page number. If the quote is 5 or more lines long, set it off by indentation, without quotation marks. For example:

   The upper parts of ophiolite sequences, especially the pillow lavas, host massive iron-copper-zinc sulfide deposits. The deposits range
from a few thousand to 20 million tons of ore, containing 0.5 to 10 percent copper, 0.5 to 3 percent zinc, and a few ounces of gold and silver per ton. (Koski et al., 1982, p. 47)

2. If you are using someone else's thoughts or findings but stating them in your own words; do not use quotation marks. You still must acknowledge the source, however. For example:

The upper parts of the ophiolite sequences contain sulfide deposits that have between a few thousand to 20 million tons of ore (Koski et al., 1982, p. 47).

OR: Koski et al. (1982, p. 47) report that the upper parts...

EXAMPLES OF REFERENCE FORMAT

Provide a reference list at the end of the paper, alphabetized by authors' last names. If you are quoting an article from a magazine, journal, or other collection, give the author(s), title of the article, and then the title of the publication (underlined):


If the article is in a volume of collected papers (volume title underlined):


Reference for a book (title underlined):


Anonymous reports from government offices, research lab, private business, etc.:


EXAMPLES OF LIBRARIES ON CAMPUS - there are many and a few are listed below:
Memorial (MEM)
College (COLL, H. C. White)
Geology and Geophysics (GEOG, 4th floor Weeks)
Geography (GEOG, Science Hall, 2nd floor)
Biology (BIOL, B164 Birge Hall)
Steenbock-Agriculture (AGR, 550 Babcock Dr.)
Engineering (ENGR, 1st fl, current periodicals; 4th fl, periodicals more than 10 years old)
Physics (PHYS, 4220 Chamberlin)
Health Sciences (HEAL, 1305 Linden Dr.)
Marine Studies Center Reading Room (12th fl. Meteorology & Space Science)
INDEXES. The librarians can help you locate these. Most index by subject as well as by author (separately). N.B.: "Networks" below are accessible in the Geology Library and most other libraries.

- General Science Index. Now on CD-ROM on Memorial network.
- Bibliography and Index of Geology (research papers) (GEOL). Now on CD-ROM, i.e., in computer form in Geology Library.
- Biological Abstracts (BIOL, AGR). Now on CD-ROM on Steenbock network.
- New York Times Index (COLL and MEM). NY Times has its own staff of science writers and good articles on recent events (e.g., volcanoes) and issues (e.g., Law of the Sea).

Campus card catalogues (books and journal titles) are now computer-accessible from 1976 or earlier.

Some PUBLICATIONS you might use:

Examples of some NON-REFEREED PUBLICATIONS. (These can be of crucial importance in getting started and for getting an overview of your subject.)

- Science News, PHYS, MEM, COLL
- Oceanus (recommended) GEOL, COLL
- Sea Frontiers, GEOL, COLL
- Scientific American, most libraries
- Geotimes, GEOL, GEOG
- EOS, Trans. Am. Geophysical Union, GEOL
- Newsweek, Time, etc., COLL, MEM
- New York Times, MEM
- National Geographic, COLL, MEM
- Audubon, BIOL, COLL
- National Wildlife, AGR, COLL
- Space News, ENGR
- LaunchSpace, ENGR
- Ad Astra, ENGR
- AEROSPACE, ENGR
- Planetary Reports, ENGR
- Popular Science, MEM, ENGR
- Smithsonian, COLL, MEM
- American Scientist, BIOL, COLL, MEM, PHYS
- New Scientist, COLL, MEM, PHYS
- Natural History, COLL, BIOL, MEM, AGR
- SPACE 88, 90, 92, 94, 96, 98, 2000, an annual conference sponsored by ASCE

Examples of some REFEREED JOURNALS. (The word "referee" is pronounced like the official at a ballgame and in many ways means the same.)

- Am. Meteorological Soc. Bull, ENGR, GEOG
- Geophysical Journal, GEOL
- Nature, Science, BIOL, COLL, ENGR, GEOL, GEOG, MEM, AGR (only
articles that show bibliographies and submitted and accepted dates; other valuable articles are by staff writers, but these are not refereed)

Jour. of Geophysical Research, GEOL
Geological Soc. of Am. Bull, GEOL
Jour. of Marine Research, BIOL
Quarterly Review of Biology, BIOL
Fusion Technology, ENGR
Space Power, ENGR
Limnology and Oceanography, BIOL, GEOL
Biological Bulletin, AGR, BIOL
Jour. of Geology, GEOL
Jour. of Physical Oceanography, ENGR, GEOL
Geology, GEOL
Journal of Propulsion and Power, ENGR
Journal of Spacecraft and Rockets, ENGR
Marine Geology, GEOL