

UR GEOLOGY: Literature Review

UR Research Title:

Name:

Course section ID

- /10 **OVERALL COMPOSITION & LAYOUT** - one or multiple point deduction per infraction
The appearance is neat and orderly. The paper is typed and graphics and data are electronically prepared and analyzed. Subscripts and superscripts are appropriately used and any equations are explained. The paper contains title and header and a minimum of 3 paragraphs which include accreditation of researchers, brief summary of the research, how the published work pertains to your research, how your research will be different from or expound on these published approaches, critique of previous work identifying controversies or limitations, and an accurately formatted Reference Page with a minimum of 6 publication & 4 web based references!
- /10 **OVERALL WRITING & GRAMMAR** - one point deduction per infraction
Spelling and grammar are correct. Word repetition and use of first person language is avoided. Statements are factually correct. Appropriate and complete language becoming to a college report is used.
- /10 **ACCREDITATION OF RESEARCHERS** - one point deduction per infraction
Shows education, current employment affiliation, and other contributions of each researcher cited
- /10 **BRIEF RESEARCH SUMMARIES** - one point deduction per infraction
The summaries are very brief but concise enough to give the gist of the research, literally a summary of the abstract.
- /10 **CONNECTION TO OWN RESEARCH** - one point deduction per infraction
Brief and concise explanation on how each of the published works cited pertain to your research
- /10 **DIFFER / EXPOUND IN RELATION TO OWN RESEARCH** - one point deduction per infraction
Brief and concise explanation on how your research will expound or differ from each of the published works cited.
- /10 **CRITIQUE ON PREVIOUS RESEARCH** - one point deduction per infraction
Brief and concise explanation on research flaws, limitations or uncertainties of the published works cited. If there are no flaws, explain why.
- /30 **CITATIONS REFERENCE PAGE** - one or multiple point deduction per infraction. -3 per missing
Correctly formatted USGS style reference page with a minimum of 6 publication & 4 web based references. Deduction -3 points for each missing reference.
-

For ALL assignments in GEL4970 use a citation's database:

ZOTERO citations
database

ZOTERO is a citations database that
incorporates itself into Word and your Browser.

Free open source software available
at <https://www.zotero.org/>

Note: You may use a different citations database, if desired. But you MUST use a citations database!

NOTE: After downloading and installing ZOTERO, take an hour or two to become familiar with the operation of the software. One of your first tasks will be to set the citation style to the United States Geologies Survey (USGS) format in ZOTERO. The USGS citation system will be required for this course and your final product.

Loading the USGS citation format into ZOTERO: Once Zotero Standalone is installed, click on "Preferences" under the Edit tab. Once there click on "Cite" and go to the "Styles" tab. Click on the "Get additional styles..." below the Styles Manger Box. When the Zotero Styles Repository Window opens, click on the "geology" button within the "Fields" section. A list of geology journals should now appear. Scroll down to the U.S.Geological Survey and click on it. The U.S.G.S style will now be part of your Zotero system and you can set your citations to be formatted accordingly in Zotero.

**YOU WILL NEED TO FIND, IMPORT INTO ZOTERO AND REPORT ON REFERENCES
PERTAINING TO YOUR UNDERGRADUATE RESEARCH FOR THIS ASSIGNMENT AS FOLLOWS:**

- 6 Publication References, such as peer-reviewed journal articles, books, data bases or other printed and vetted publications. Use your Auraria Library Login and Auraria's Google Scholar search, which will allow you to use / download many print references.

NOTE: In general, textbooks are NOT accepted as citable sources unless they are specific (upper division graduate type with citations). Neither are popular magazines, such as National Geographic! Stick with peer-reviewed geoscience publications.

- 4 vetted web based references, software, or data bases, e.g. MinDat.org or RRUFF.org

NOTE: Wikipedia is NOT an acceptable source.

WRITING A LITERATURE REVIEW

A scientific literature review is a critical account of what has been published on a topic by accredited researchers. It should improve your topic knowledge, provide new insight on your topic to others, demonstrate your literature searching abilities, demonstrate your critical analysis skills, and demonstrate your communication/writing skills. Your literature review will become part of your final course product.

A scientific literature review is NOT an (English) essay. It is likewise NOT just a summary of each research article that you read, even though a brief summary is a small part of the whole assignment. Furthermore, a scientific literature review is NOT based on your personal opinion or is biased towards your opinion. This is a frequent danger when addressing environmentally related issues. Moreover, it is NOT a chronological history of events in your research area or just a list of references or sources you have found!

Literature Review Outline

Use a 12- or 11-point standard font (Times, Arial, Helvetica), double spaced. Use letter size paper with 1 inch margins, single sided. Place header on each page. Use HEADINGS!

- TITLE PAGE: Full Title; Your Name; Course ID, Instructor, Date
- HEADER on EACH page (excluding Title Page): Abbreviated Title; Your Name; Course ID, Page number
- Body: Use Headings! Paragraphs are to consist of a minimum of 3 sentences. Use citations!
 - Address the following:
 - Accreditation of researchers
 - Brief (very brief) summary of the research (Literally a summary of the Abstract)
 - How the published work pertains to your research
 - How your research will be different from or expound on these published approaches
 - Critique the work, identify controversies or limitations: “Is that really true?”, “How do you know?”, “Show me the evidence!”, “Is that evidence reliable?” If there are none, explain why!
- The last page in your **Literature Review should be an accurately formatted Reference Page!** Cited literature should be in alphabetical order, sorted by first author. This literature review should contain a minimum of 6 publication & 4 web based references!
- SUBMIT COMPLETED PAPER THROUGH THE CANVAS COURSE PORTAL IN PDF FORMAT

General Writing Instruction Summary:

- Use professional language, which means AVOID first person expressions such as “I”, “we”, “our”. Use normal prose, active voice and third party language. Do NOT use informal wording, contractions, jargon, slang terms, or superlatives. Exclude similes/metaphors (and humor!)
- Use present tense to report well accepted facts, e.g. 'Pyrite is a sulfide mineral'. Use past tense to describe specific results, e.g. 'When acid was applied, the specimen effervesced'
- Be quantitative wherever relevant (stats, numbers etc.).

Subscript & Superscript Use appropriate subscript and superscript, especially when it comes to chemical formulas and mathematical units..

Acceptable examples: 2.9 g/cm^3 , H_2O , PO_4^{3-} , $a_g=9.8\text{m/s}^2$

Unacceptable examples: 2.9 g/cm3 , H2O , $\text{PO4 } 3-$, $a_g=9.8\text{m/s}^2$

- Use precise concrete language, no ambiguity e.g, ‘correlated’ ≠ ‘related’. Use simple language – no unnecessary “frills” (distractions). Pay attention to sentence structure and grammar

GRADING and NOTATIONS

Language

The following list is an example of common faults in language usage and attribution.

Errors / Mistakes / Faults	Examples with margin <i>Fault Counts & Codes</i>
Spelling: incl. capitalization errors & spacing	The mineral <u>florite</u> has a <u>mohs</u> hardness of four. Nicolas Steno <u>_</u> was trained in the classical texts on science.
Grammar: incl. punctuation, superfluous words, transpositions	Isometric crystals are also isotropic Here light propagates at the same speed. Rocks are composed of many many <u>minerals mixed.</u>
Style: incl. paragraph, repetitive expressions / words erroneous expression / words, sub- or superscription, unprofessional style, word insertion	<i>Para.</i> ... in the geologic sciences.¶Near the end of the 19 th a new theory ... <i>rep</i> ... is a <u>light colored</u> mineral. These <u>light colored</u> minerals are often <u>light</u> ... Stalactites hang from the <u>sealing?</u> of a limestone cave. <i>sup</i> The density of quartz is 2.65 <u>g/cm3</u> . I was <u>investigating</u> the outcrop with <u>my group</u> . Sodium sulfate forms a chalky, <u>incoherent</u> precipitate. <i>amorphous?</i> ^
Sentence: incl. grammar, run-on, strings of nouns	The density of gold is <u>greater then?</u> the density of silver. Pyrite has a symmetrical crystal <u>structure, it is cubic</u> . <u>Skarn mineral zonation?</u> is apparent in the sample.

Content

Errors in content are spelled out. Severe infractions may count for multiple errors.

Errors / Mistakes / Faults	Examples with margin <i>Fault Counter & Codes</i>
Unclear / erroneous statements	<i>unclear, units?</i> <u>Mohs hardness of the mineral in question is 16.5.</u>
False / nonsense	<i>Nonsense</i> <u>Glaciation cause severe metamorphism of the region</u>