

**SENIOR RESEARCH (Geography/Geoscience)**

Lecture 1: M 17-19 :30 ; W 17-19:30; Sci B338\*

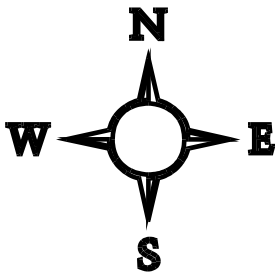
Office: Science D333

Office Hours: on-line; or by appt

e-mail: [nheywood@uwsp.edu](mailto:nheywood@uwsp.edu)

**\*except for the all-class meetings, each project team meets at its own weekly hour**

**READ AND RETAIN THIS SYLLABUS!**



This is the capstone course, your culminating experience of an undergraduate career and Geography major. Accordingly, my expectations for your project will be quite high. I expect nothing less than products that will win you the position when you show them to a personnel officer during an interview. You will not obtain my endorsement for anything less.

This course carries three GEP credit hours toward graduation. Importantly, **all** projects are collaborative; you will be part of a team working *together* to address a research problem. The faculty provide a choice of general research themes; student teams then refine one of these into a specific research question, with advice from a topical faculty mentor.

*Project teams shall consist of no fewer than three and no more than five students; four is the ideal.* Each team will meet for about one hour weekly with their topical advisor and/or myself; **attendance is mandatory.** Teams will mutually determine the time, day and place of their meetings to accommodate the schedules of the students *and the faculty advisor(s)*. Except for the very first class meetings and the final presentations, we will **NOT** meet as a full class every Wednesday. Once you have made your project commitment to me *via e-mail*, you may **NOT** change to another question or team. You must make this commitment **NO LATER** than the end of the first class meeting on Wednesday, 24 January 2018. If you do not inform me by this deadline, I will review your coursework before *assigning* you to a team. Your team shall design, execute, and report upon a substantive research work of your mutual device. Collectively your team shall produce a project report, a poster, and an illustrated oral presentation, and individually you will provide a research journal and survey of your personal activities. In the "real world" you may rarely again ever find yourself required to come up with a solo *prima donna* product, but it is extremely likely that you *will* someday (translate as "very soon") need to contribute towards a team effort. This is how the modern professional workplace usually operates.

*I will accept your projects **only** by delivery through electronic media.* All word processing must be in the current campus version of MicroSoft Word; all journals/spreadsheets in MicroSoft Excel, and all presentations in MicroSoft PowerPoint. I will **NOT** accept any materials that are in inappropriate format or on tangible media (i.e., no paper or diskettes). Submit all group work into a "dropbox" that I will set up on [D2L](#) for each team. By this same procedure I shall return feedback and comments. *Please do **NOT** send large attachments (report drafts with embedded graphics, PowerPoint presentations, etc.) by e-mail*, as having many students doing this quickly jams my e-mail quota. **Use the dropbox, and nothing else.**

**TEXT:** There is no required textbook. However, **30% of your course grade derives from weekly participation.**

**ATTENDANCE:** Except while learning faces and enrolling late registrations during the first week, I will not divert time by calling roll. There instead will be a sign-in sheet at the final all-class meeting(s), including final presentation sessions.

**CLASS ID#:** **Subtract** (do *not* concatenate, append, or excise digits!) the **last** letter of your **first** name from your UWSP ID#. e.g. 12345678 (UWSP ID#)

- \_\_\_\_\_12(Neil)  
**12345666 THIS WOULD BE MY CLASS ID#**

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26

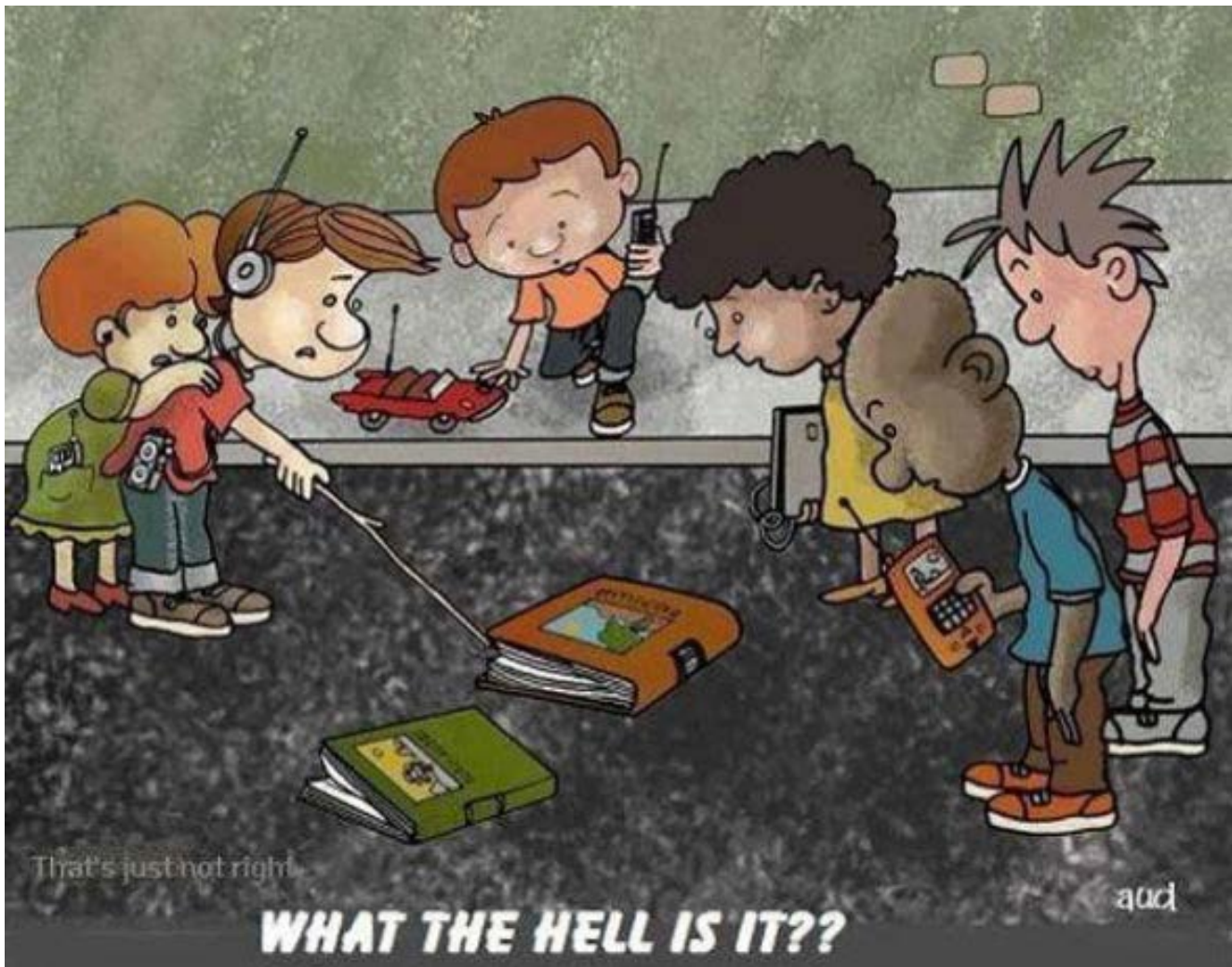
This extra procedure to further protect YOUR identity in this class. Do **NOT** use it to access UWSP computing accounts.

DATES (due dates in bold)	TOPICS	ITEMS DUE
<b>W24JAN</b>	<b>All-class meeting:</b> teams, Institutional Reviews	
Week ending <b>F02FEB</b>	Problem refinement, feasibility, product	<b>Draft Proposal</b>
Week ending <b>F09FEB</b>	Team research questions, data sources, proposal	<b>Final Proposal 5%</b>
Weeks ending <b>F23FEB</b>	Team report introduction drafts; problem statements	<b>Statement Draft 5%</b>
Week ending <b>F02MAR</b>	Team report methodology drafts	<b>Methods &amp; Data 5%</b>
Weeks ending <b>F16MAR</b>	Team report analyses/interpretations drafts	<b>Interpretations 5%</b>
Week ending <b>F06APR</b>	Team full report drafts	<b>Report Draft</b>
Weeks ending <b>F27APR</b>	Team <b>final</b> reports; <i>Powerpoint</i> presentations/rehearsals	<b>FINAL Report 30%</b>
<b>W09MAY 17:00</b>	<b>All-class meeting:</b> up to six Final <b>Presentations (10%)</b>	<b>Personal Journal 5%</b>
<b>W16MAY 17:00</b>	Final consultations	<b>Evaluation Survey 5%</b>

You *must* work as a *team*. Accordingly, there are **NO acceptable excuses** for late submissions; don't even ask. Have your tasks at the designated site and at the correct time and date, else you will **all** go without. If you habitually have relied upon second chances, or extra credit, you will find some very hard landings on the far side of the graduation stage, if you even get there. Second chances and extra credit do *not* apply in skydiving, heart surgery, nor nuclear hand grenades—nor will they at all for GEO 490! Fair notice, Folks; got it?

Please also examine [Rights and Responsibilities](#), specifically pages 2-4, that explains Student Rights and Responsibilities within the UWSP campus community, including required behavior by students and faculty within the classroom environment. The professionalism component of your course grade depends in part upon your compliance with these official UWSP guidelines. If I hear of any 3 AM fistfights in our computing labs, you are back again next year.

Drop your preconceptions that the Google and Social Media will save you. These help (*sometimes*), but there are things called books and libraries (alien as these may have become to you) that warrant examination. *Try one!*



You may find some additional web links useful, even beyond GEO 490. I frequently receive requests for these.

[News](#)  
[Academics](#)  
[Base Maps](#)

[Conversions](#)  
[free Adobe Reader](#)  
[Scholarships](#)

[Wisconsin Employment](#)  
[Wisconsin Job Center](#)  
[Federal Employment](#)



Please consider the environment - do you *really* need to print this? Can't we leave knowing our great-grandchildren might see a forest?

### Geography/Geoscience Oral Presentation Grading Rubric

CONTENT & SUBJECT KNOWLEDGE 35%	A: (10-9 pts) Excellent	B: (8-7 pts) Good	C: (6-5 pts) Satisfactory	D: (4-3) pts Unsatisfactory
Research Effort & Accuracy				
<ul style="list-style-type: none"> <li>• Project definition</li> <li>• Fit into scholarly framework</li> <li>• Accuracy &amp; relevance</li> <li>• Methodology</li> <li>• Analysis and results</li> <li>• Conclusion</li> </ul>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Collegiate level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Handling questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ORGANIZATION 15%	A: (10-9 pts) Excellent	B: (8-7 pts) Good	C: (6-5 pts) Satisfactory	D: (4-3) pts Unsatisfactory
Sequencing of information				
<ul style="list-style-type: none"> <li>• Logical, interesting sequence</li> <li>• Component sections</li> <li>• Smooth transitions</li> <li>• Audience can follow</li> </ul>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Citations				
<ul style="list-style-type: none"> <li>• Sources cited</li> <li>• Completeness &amp; formatting</li> <li>• Source credibility</li> </ul>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Group logistics (if applicable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MEDIA AIDS 15%	A: (10-9 pts) Excellent	B: (8-7 pts) Good	C: (6-5 pts) Satisfactory	D: (4-3) pts Unsatisfactory
Media	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Graphics				
<ul style="list-style-type: none"> <li>• Sparse/busy</li> <li>• Appropriateness</li> <li>• Text quality</li> <li>• Information quantity per slide</li> <li>• Appropriateness of imagery</li> </ul>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Logistics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grammar				
<ul style="list-style-type: none"> <li>• Spelling</li> <li>• Sentence construction</li> </ul>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
DELIVERY 35%	A: (10-9 pts) Excellent	B: (8-7 pts) Good	C: (6-5 pts) Satisfactory	D: (4-3) pts Unsatisfactory
Eye contact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enthusiasm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Elocution				
<ul style="list-style-type: none"> <li>• Articulation</li> <li>• Pronunciation</li> <li>• Grammar</li> <li>• Vocabulary</li> <li>• Voice modulation</li> <li>• Volume</li> </ul>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Timing				
<ul style="list-style-type: none"> <li>• Time limit</li> <li>• Pacing</li> </ul>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
Mannerisms & personal appearance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Responsiveness to audience				
<ul style="list-style-type: none"> <li>• Topic knowledge</li> <li>• Clarification</li> <li>• Audience attention</li> </ul>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Audience engagement (if appropriate)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>CONTENT/SUBJECT KNOWLEDGE 35%</b>	<b>A: Excellent; 10-9 pts</b>	<b>B: Good; 8-7 pts</b>	<b>C: Satisfactory; 6-5 pts</b>	<b>D: Unsatisfactory; 4-3 pts</b>
<b>Research Effort and Accuracy</b>	<ul style="list-style-type: none"> <li>• Speaker defines project objective, problem statement, or research question in a clear, coherent way;</li> <li>• Speaker provides a clear, compelling statement of how project fits into framework of existing research; statement is based on appropriate scholarly resources;</li> <li>• Provides completely accurate information and explanations of key concepts; all information is directly related to project thesis;</li> <li>• Clearly and concisely describes an appropriate methodology; readers could replicate methodology;</li> <li>• Discussion of results and analysis is clear and concise, and addresses and interprets all key points correctly;</li> <li>• Provides a clear, coherent conclusion that shows thoughtful evaluation of evidence presented and that provides good suggestions for future research.</li> </ul>	<ul style="list-style-type: none"> <li>• Speaker defines project objective, problem statement, or research question;</li> <li>• Provides a statement of how project fits into framework of existing research; statement is based on appropriate scholarly resources;</li> <li>• Presentation contains no significant errors regarding accuracy of information or explanations of key concepts; all information related to project thesis;</li> <li>• Describes an appropriate methodology; readers could likely replicate methodology;</li> <li>• Discussion of results and analysis contains minor mistakes addressing or interpreting key points;</li> <li>• Provides a conclusion that shows an evaluation of the evidence presented; provides suggestions for future research</li> </ul>	<ul style="list-style-type: none"> <li>• Speaker does not define project objective, problem statement, or research question clearly;</li> <li>• Presents an unclear or unconvincing statement of how project fits into framework of existing research, or statement is not entirely based on appropriate resources;</li> <li>• Presentation contains some significant inaccuracies or incorrect explanations of key concepts; contains information not directly related to project thesis;</li> <li>• Methodology is unclear or not entirely appropriate; replicating methodology would be difficult;</li> <li>• Results and analysis are unclear or contain some big mistakes addressing or interpreting key points;</li> <li>• Conclusion is somewhat incoherent and provides limited evaluation of evidence presented; provides limited or contrived suggestions for future research.</li> </ul>	<ul style="list-style-type: none"> <li>• Speaker does not define project objective, problem statement, or research question;</li> <li>• Presents little or no evidence of how project fits into the framework of existing research; or evidence is based on inappropriate resources;</li> <li>• Presentation contains a lot of inaccuracies or incorrect explanations of key concepts; much information is unrelated/ unsupportive of thesis;</li> <li>• Methodology is not described or is inappropriate; readers would not be able to replicate methodology;</li> <li>• Discussion of results and analysis is missing or fails to address or correctly interpret many key points;</li> <li>• Conclusion is missing or provides no evaluation of the evidence presented; provides no suggestions for future research.</li> </ul>
<b>Collegiate level</b>	<ul style="list-style-type: none"> <li>• Level of presentation is appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>• Level of presentation is generally appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>• Portions of presentation are too elementary or too sophisticated.</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation consistently is too elementary or too sophisticated.</li> </ul>
<b>Handling questions</b>	<ul style="list-style-type: none"> <li>• Anticipates audience questions;</li> <li>• Understands audience questions;</li> <li>• Demonstrates full knowledge of material; can explain and elaborate on answers to questions.</li> </ul>	<ul style="list-style-type: none"> <li>• Anticipates some audience questions;</li> <li>• Understands most audience questions;</li> <li>• Demonstrates sufficient knowledge of material to answer questions, but doesn't elaborate.</li> </ul>	<ul style="list-style-type: none"> <li>• Does not anticipate questions;</li> <li>• Does not understand many questions;</li> <li>• Has difficulty answering questions beyond a rudimentary level.</li> </ul>	<ul style="list-style-type: none"> <li>• Does not anticipate questions;</li> <li>• Does not understand questions;</li> <li>• Is unable to answer questions.</li> </ul>
<b>ORGANIZATION 15%</b>	<b>A: Extremely well organized; flows well; 10-9 pts</b>	<b>B: Generally well organized; flows; 8-7 pts</b>	<b>C: Somewhat organized; awkward flow; 6-5 pts</b>	<b>D: Not organized; does not flow; 4-3 pts</b>
<b>Sequencing of information</b>	<ul style="list-style-type: none"> <li>• Information presented in a logical and interesting sequence;</li> <li>• Information clearly divided into component sections (e.g. introduction, methodology, etc.);</li> <li>• Has effective, smooth transitions between sections (introduction, methodology, results, etc.) and between key points within a section;</li> </ul>	<ul style="list-style-type: none"> <li>• Most information presented in a logical sequence;</li> <li>• Information is divided into component sections (e.g. introduction, site description, methodology etc.);</li> <li>• Has transitions between sections and key points but they are not always effective or smooth;</li> </ul>	<ul style="list-style-type: none"> <li>• Sequence of information not always logical or interesting;</li> <li>• Information not always clearly divided into sections (e.g. methodology mixed in with introduction);</li> <li>• Transitions between sections and key points are not effective or smooth, or some transitions are missing; speaker jumps around from point to point or topic to topic;</li> </ul>	<ul style="list-style-type: none"> <li>• Sequence of information illogical and uninteresting;</li> <li>• Information not divided into component sections (e.g. introduction, site description, methodology);</li> <li>• Does not have transitions or transitions are ineffective; sections and key points are not connected; presentation is choppy and disjointed;</li> </ul>

	<ul style="list-style-type: none"> <li>• Audience can easily follow and understand the presentation.</li> </ul>	<ul style="list-style-type: none"> <li>• Audience can follow and understand presentation but a minor rearrangement would make presentation more interesting and easier to follow.</li> </ul>	<ul style="list-style-type: none"> <li>• Audience has difficulty following and understanding the presentation.</li> </ul>	<ul style="list-style-type: none"> <li>• Audience cannot understand or follow the presentation.</li> </ul>
Citations	<ul style="list-style-type: none"> <li>• All sources are correctly cited;</li> <li>• Citations are complete and properly formatted;</li> <li>• Audience can determine credibility and authority of resources.</li> </ul>	<ul style="list-style-type: none"> <li>• Most sources are correctly cited;</li> <li>• Most citations are complete and properly formatted;</li> <li>• Audience can determine credibility and authority of resources.</li> </ul>	<ul style="list-style-type: none"> <li>• Many sources are incorrectly cited;</li> <li>• Many citations are incomplete and improperly formatted;</li> <li>• Audience has difficulty determining credibility and authority of resources.</li> </ul>	<ul style="list-style-type: none"> <li>• Sources are not cited;</li> <li>• Citations are incomplete and improperly formatted;</li> <li>• Audience cannot determine credibility or authority of resources.</li> </ul>
Group logistics (if applicable)	<ul style="list-style-type: none"> <li>• Each speaker knows when it's their turn; speakers transition from one speaker to the next speaker smoothly and seamlessly.</li> </ul>	<ul style="list-style-type: none"> <li>• Each speaker knows when it's their turn; speakers transition from one speaker to the next, but not all transitions are smooth or seamless.</li> </ul>	<ul style="list-style-type: none"> <li>• Some speakers are unsure when it's their turn; transitions are awkward.</li> </ul>	<ul style="list-style-type: none"> <li>• Most speakers are unsure when it's their turn; transitions are abrupt and disjointed.</li> </ul>
<b>MEDIA AIDS 15%</b>	<b>A: Excellent 10-9 pts</b>	<b>B: Good 8-7 pts</b>	<b>C: Satisfactory 6-5 pts</b>	<b>D: Unsatisfactory 4-3 pts</b>
Media	<ul style="list-style-type: none"> <li>• Media reinforce presentation thesis and maximize audience understanding.</li> </ul>	<ul style="list-style-type: none"> <li>• Media aid presentation thesis and audience understanding;</li> </ul>	<ul style="list-style-type: none"> <li>• Media don't always aid presentation thesis or enhance understanding.</li> </ul>	<ul style="list-style-type: none"> <li>• Media neither aid presentation thesis nor enhance audience understanding.</li> </ul>
Graphics	<ul style="list-style-type: none"> <li>• Graphics are neither sparse nor busy;</li> <li>• Appropriate and artistic use of colors and fonts for emphasis or to aid organization of presentation;</li> <li>• Text sufficiently large to be read easily from the back of the room;</li> <li>• Sufficient text/information for audience to easily follow presentation, but not so much that audience is busy reading instead of listening;</li> <li>• All imagery and maps are at an appropriate resolution, use appropriate colors, and are appropriate for the context.</li> </ul>	<ul style="list-style-type: none"> <li>• Graphics are somewhat sparse or busy;</li> <li>• Mostly appropriate use of colors and fonts for emphasis or to aid organization of presentation;</li> <li>• Text can be read from the back of the room;</li> <li>• Sufficient text/information so that audience can follow presentation;</li> <li>• Most imagery and maps are at an appropriate resolution, use appropriate colors, and are appropriate for the context.</li> </ul>	<ul style="list-style-type: none"> <li>• Graphics too sparse or too busy;</li> <li>• Minimal color/font variation; or, slightly too many colors/fonts, which detract from presentation;</li> <li>• Text too small to be easily read from the back of the room;</li> <li>• Some slides have insufficient text/information or too much text/information so that audience has trouble following presentation;</li> <li>• Much imagery and maps are at an inappropriate resolution, use inappropriate colors, and are inappropriate for the context.</li> </ul>	<ul style="list-style-type: none"> <li>• Graphics poorly prepared and detract from presentation;</li> <li>• No color/font variation or too much color/font variation; slide appearance changes from slide to slide;</li> <li>• Text can't be read from the back of the room;</li> <li>• All slides have insufficient text/information or too much text/information so that audience is unable to follow presentation;</li> <li>• All imagery and maps are at an inappropriate resolution, use inappropriate colors, and are inappropriate for the context.</li> </ul>
Logistics	<ul style="list-style-type: none"> <li>• Speaker deals successfully with media limitations of presentation site; all media (e.g. slides, video, sound clips) work appropriately and appear correctly on screen.</li> </ul>	<ul style="list-style-type: none"> <li>• Speaker deals with media limitations of the presentation site; all media work, but minor bugs or errors in the presentation occur.</li> </ul>	<ul style="list-style-type: none"> <li>• Speaker has difficulty dealing with media limitations of presentation site; most but not all of the media work; some media appear incorrectly on screen.</li> </ul>	<ul style="list-style-type: none"> <li>• Speaker is unable to deal with presentation site media limitations; much of the media do not work correctly or appear incorrectly on screen.</li> </ul>
Grammar, spelling	<ul style="list-style-type: none"> <li>• No grammar or spelling mistakes;</li> <li>• Concise sentences; bulleted points may be incomplete sentences, but contain sufficient information that audience clearly understands the point.</li> </ul>	<ul style="list-style-type: none"> <li>• Minor grammar spelling mistakes; errors insufficient to distract audience;</li> <li>• Some wording is less than concise; bulleted points longer or shorter than necessary, but audience can still understand the point.</li> </ul>	<ul style="list-style-type: none"> <li>• Some significant grammatical and spelling errors; audience is somewhat distracted;</li> <li>• Writing is wordy and unclear; bulleted points too wordy or terse so audience has trouble understanding the point.</li> </ul>	<ul style="list-style-type: none"> <li>• Poor grammar and multiple spelling errors; sufficient problems that audience loses interest;</li> <li>• Writing is incomprehensible.</li> </ul>

<b>DELIVERY 35%</b>	<b>A: Excellent 10-9 pts</b>	<b>B: Good 8-7 pts</b>	<b>C: Satisfactory 6-5 pts</b>	<b>D: Unsatisfactory 4-3 pts</b>
<b>Eye contact</b>	<ul style="list-style-type: none"> <li>Maintains eye contact with audience; looks at all parts of room;</li> <li>Seldom refers to notes.</li> </ul>	<ul style="list-style-type: none"> <li>Mostly maintains eye contact; looks at different parts of room;</li> <li>Refers to notes frequently.</li> </ul>	<ul style="list-style-type: none"> <li>Makes some eye contact; looks at only a few parts of room;</li> <li>Reads notes at least half the time.</li> </ul>	<ul style="list-style-type: none"> <li>Makes almost no eye contact with audience;</li> <li>Reads all or most of the report.</li> </ul>
<b>Enthusiasm</b>	<ul style="list-style-type: none"> <li>Speaker is clearly interested in and enthusiastic about the topic.</li> </ul>	<ul style="list-style-type: none"> <li>Speaker appears interested in the topic but presentation is a bit dry.</li> </ul>	<ul style="list-style-type: none"> <li>Speaker appears somewhat bored with the topic.</li> </ul>	<ul style="list-style-type: none"> <li>Speaker shows no interest in or enthusiasm about the topic.</li> </ul>
<b>Elocution</b>	<ul style="list-style-type: none"> <li>Articulates clearly;</li> <li>Pronounces all terms correctly;</li> <li>Uses correct grammar; speaks in complete sentences; sentences flow together easily;</li> <li>Uses a rich and varied vocabulary;</li> <li>Modulates voice appropriately to maintain audience attention and to emphasize key points; uses an engaging tone;</li> <li>Talks at a proper volume so everyone in the room can readily hear; not too soft and not too loud.</li> </ul>	<ul style="list-style-type: none"> <li>Articulates most words clearly;</li> <li>Pronounces most terms correctly;</li> <li>Uses correct grammar but has a few incomplete sentences or sentences that don't flow readily;</li> <li>Uses a vocabulary appropriate for the context;</li> <li>Mostly modulates voice appropriately to maintain audience attention and to emphasize key points; mostly uses an engaging tone;</li> <li>Talks at a volume that allows everyone to hear, but may be slightly soft or loud.</li> </ul>	<ul style="list-style-type: none"> <li>Articulates enough words unclearly that audience has questions;</li> <li>Mispronounces a moderate number of terms;</li> <li>Makes grammatical mistakes, talks in incomplete sentences, sentences don't flow;</li> <li>Uses a vocabulary that is not always appropriate for the context;</li> <li>Doesn't modulate voice sufficiently to keep audience attention or emphasize key points, but doesn't talk in a monotone; or, modulates voice too much;</li> <li>Talks so softly that audience has trouble hearing or so loudly that some feel they are being shouted at.</li> </ul>	<ul style="list-style-type: none"> <li>Mumbles and articulates poorly; audience cannot understand;</li> <li>Mispronounces many terms;</li> <li>Has such poor grammar that audience has trouble understanding; unable to string sentences together;</li> <li>Uses a vocabulary inappropriate for context;</li> <li>Talks in a monotone;</li> <li>Talks so softly that audience cannot hear or so loudly that audience feels it is being shouted at.</li> </ul>
<b>Timing</b>	<ul style="list-style-type: none"> <li>Adheres to the time limit set forth within 10%;</li> <li>Presents information at a normal speaking pace; audience can easily follow the information without getting bored.</li> </ul>	<ul style="list-style-type: none"> <li>Adheres to the time limit set forth within 20%;</li> <li>Presents information at a slightly accelerated rate – audience can follow but needs to pay attention; or speaker presents information at a slightly slow pace – audience can easily follow but may lose interest.</li> </ul>	<ul style="list-style-type: none"> <li>Adheres to the time limit set forth within 30%;</li> <li>Presents information at fast pace; crams more information into time limit than audience can absorb; audience may get lost. OR speaker presents information so slowly that audience loses interest; speaker is clearly trying to eat up time.</li> </ul>	<ul style="list-style-type: none"> <li>Is more than 30% off time limit set forth;</li> <li>Presents information at a pace that is too fast or too slow (e.g. trying to eat up time; doesn't know what to say next).</li> </ul>
<b>Mannerisms &amp; personal appearance</b>	<ul style="list-style-type: none"> <li>Speaker is poised, confident, and comfortable speaking in front of a group; no distracting mannerisms;</li> <li>Personal appearance is completely appropriate for the occasion and audience.</li> </ul>	<ul style="list-style-type: none"> <li>Speaker is slightly nervous, but still competent at speaking in front of a group; no distracting mannerisms;</li> <li>For the most part, personal appearance is appropriate for the occasion and audience;</li> </ul>	<ul style="list-style-type: none"> <li>Speaker is nervous and uncomfortable speaking in front of a group; some negative mannerisms;</li> <li>Personal appearance is somewhat inappropriate for the occasion and audience.</li> </ul>	<ul style="list-style-type: none"> <li>Speaker is extremely nervous and uncomfortable; negative mannerisms distract audience;</li> <li>Personal appearance is inappropriate for the occasion and audience.</li> </ul>
<b>Responsiveness to audience</b>	<ul style="list-style-type: none"> <li>Demonstrates extensive knowledge of the topic by responding confidently, precisely and appropriately to all audience questions;</li> <li>Clarifies, restates or summarizes information when needed;</li> <li>Holds audiences' attention throughout the presentation.</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates knowledge of the topic by responding appropriately to audience questions but doesn't elaborate;</li> <li>Occasionally clarifies, restates, or summarizes information;</li> <li>Holds audiences' attention most of the time.</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates some rudimentary knowledge by responding appropriately to some but not all questions; fails to elaborate;</li> <li>Rarely clarifies, restates or summarizes information;</li> <li>Only occasionally holds audiences' attention.</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates incomplete knowledge of the topic by responding inappropriately to many questions;</li> <li>Never clarifies, restates or summarizes information;</li> <li>Loses audiences' interest.</li> </ul>

<p>Engagement with audience (as appropriate)</p>	<ul style="list-style-type: none"> <li>• Actively involves audience in the presentation;</li> <li>• Encourages audience interaction; calls on classmates by name.</li> </ul>	<ul style="list-style-type: none"> <li>• Generally involves audience in the presentation;</li> <li>• Encourages audience interaction.</li> </ul>	<ul style="list-style-type: none"> <li>• Reluctantly involves audience in the presentation;</li> <li>• Misses opportunities for interaction.</li> </ul>	<ul style="list-style-type: none"> <li>• Avoids or discourages active audience involvement;</li> <li>• Avoids or discourages audience interaction.</li> </ul>
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### Geography/Geoscience Paper Grading Rubric

CONTENT & SUBJECT KNOWLEDGE 40%	A: (10-9 pts) Excellent	B: (8-7 pts) Good	C: (6-5 pts) Satisfactory	D: (4-3) pts Unsatisfactory
<b>Research Effort &amp; Accuracy</b> <ul style="list-style-type: none"> <li>• Project definition</li> <li>• Fit in scholarly framework</li> <li>• Accuracy &amp; relevance</li> <li>• Methodology</li> <li>• Analysis &amp; results</li> <li>• Conclusion</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Collegiate level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WRITING: GRAMMAR & COMPOSITION 40%	A: (10-9 pts) Excellent	B: (8-7 pts) Good	C: (6-5 pts) Satisfactory	D: (4-3) pts Unsatisfactory
<ul style="list-style-type: none"> <li>• Grammar/spelling</li> <li>• Sentence structure</li> <li>• Wording</li> <li>• Correct use of scientific terms</li> <li>• Component sections</li> <li>• Section organization, flow</li> <li>• Paragraph organization, flow</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CITATIONS 10%	A: (10-9 pts) Excellent	B: (8-7 pts) Good	C: (6-5 pts) Satisfactory	D: (4-3) pts Unsatisfactory
<ul style="list-style-type: none"> <li>• All sources cited</li> <li>• Completeness &amp; formatting</li> <li>• Reference list complete</li> <li>• Reference list formatting</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MECHANICS 10%	A: (10-9 pts) Excellent	B: (8-7 pts) Good	C: (6-5 pts) Satisfactory	D: (4-3) pts Unsatisfactory
<ul style="list-style-type: none"> <li>• Heading hierarchy</li> <li>• Consecutively figure/table numbers</li> <li>• Separate figure/table numbers</li> <li>• Order of figures/tables</li> <li>• Text spacing</li> <li>• Margins</li> <li>• Font</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



<b>CONTENT/SUBJECT KNOWLEDGE 35%</b>	<b>A: Excellent; 10-9 pts</b>	<b>B: Good; 8-7 pts</b>	<b>C: Satisfactory; 6-5 pts</b>	<b>D: Unsatisfactory; 4-3 pts</b>
<b>Research Effort and Accuracy</b>	<ul style="list-style-type: none"> <li>• Introduction defines project objective, problem statement, or research question in a clear, coherent way;</li> <li>• Statement of how project fits into framework of existing research is clear and compelling, and is based on appropriate scholarly resources;</li> <li>• Contains completely accurate information and explanations of key concepts; all information is directly related to project thesis;</li> <li>• Clearly and concisely describes an appropriate methodology; readers could replicate methodology;</li> <li>• Discussion of results and analysis is clear and concise, and addresses and interprets all key points correctly;</li> <li>• Contains a clear, coherent conclusion that shows thoughtful evaluation of evidence presented and provides good suggestions for future research.</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction defines project objective, problem statement, or research question;</li> <li>• Statement of how project fits into framework of existing research is based on appropriate scholarly resources;</li> <li>• Contains no significant errors regarding accuracy of information or explanations of key concepts; all information related to project thesis;</li> <li>• Describes an appropriate methodology; readers could likely replicate methodology;</li> <li>• Discussion of results and analysis contains minor mistakes addressing or interpreting key points;</li> <li>• Contains a conclusion that shows evaluation of the evidence presented; provides suggestions for future research.</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction does not define project objective, problem statement, or research question clearly;</li> <li>• Statement of how project fits into framework of existing research is unclear, unconvincing, or not entirely based on appropriate resources;</li> <li>• Contains some significant inaccuracies or incorrect explanations of key concepts; contains information not directly related to project thesis;</li> <li>• Methodology is unclear or not entirely appropriate; replicating methodology would be difficult;</li> <li>• Results and analysis are unclear or contain some big mistakes addressing or interpreting key points;</li> <li>• Conclusion is somewhat incoherent and provides limited evaluation of evidence presented; provides limited or contrived suggestions for future research.</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction does not define project objective, problem statement, or research question;</li> <li>• Statement of how project fits into framework of existing research is missing or is based on inappropriate resources;</li> <li>• Contains a lot of inaccuracies or incorrect explanations of key concepts; much information is unrelated/ unresponsive of thesis;</li> <li>• Methodology is not described or is inappropriate; readers would not be able to replicate methodology;</li> <li>• Discussion of results and analysis is missing or fails to address or correctly interpret many key points;</li> <li>• Conclusion is missing or provides no evaluation of the evidence presented; no suggestions for future research.</li> </ul>
Collegiate level	• Level is consistently appropriate.	• Level is generally appropriate.	• Portions too elementary.	• Level is consistently too elementary.
<b>WRITING: Grammar &amp; Composition 35%</b>	<b>A: Excellent 10-9 pts</b>	<b>B: Good 8-7 pts</b>	<b>C: Satisfactory 6-5 pts</b>	<b>D: Unsatisfactory 4-3 pts</b>
	<ul style="list-style-type: none"> <li>• Few grammatical errors, typos or misspellings;</li> <li>• Concise, clear sentence structure; wording is unambiguous;</li> <li>• Appropriate word selection;</li> <li>• Correct use of scientific terms;</li> <li>• Information clearly divided into component sections (e.g. introduction, methodology); smooth flow between sections;</li> <li>• Information within each section logically organized; no redundant information; smooth flow between ideas;</li> </ul>	<ul style="list-style-type: none"> <li>• Some grammatical errors, typos and spelling errors;</li> <li>• Sentence structure is mostly concise and clear; some minor ambiguities;</li> <li>• Some inappropriate word selection;</li> <li>• Some misuse of scientific terms;</li> <li>• Information divided into component sections; transitions between sections not always smooth;</li> <li>• Organization of information within each section mostly logical; some redundant information; flow between ideas not always smooth;</li> </ul>	<ul style="list-style-type: none"> <li>• Significant grammatical errors, typos and spelling errors;</li> <li>• Sentence structure is wordy and awkward; meaning not always clear;</li> <li>• A moderate number of examples of inappropriate word selection;</li> <li>• A moderate number of instances where scientific terms are used inappropriately;</li> <li>• Information not always clearly divided into sections; transitions between sections somewhat awkward or abrupt;</li> <li>• Organization of information within each section often not logical; poor organization results in a moderate amount of redundant information; awkward flow between ideas;</li> </ul>	<ul style="list-style-type: none"> <li>• Consistently poor grammar, multiple typos and spelling errors;</li> <li>• Sentence structure is nearly incomprehensible;</li> <li>• Multiple instances of inappropriate word selection;</li> <li>• Multiple instances where scientific terms are used inappropriately;</li> <li>• Information not divided into component sections or information belonging in separate sections mixed together; no transition between sections;</li> <li>• No organization to information within each section; lack of organization results in much redundant information; no flow between ideas within a section.</li> </ul>

	<ul style="list-style-type: none"> <li>Paragraphs are organized around a coherent point, contain a topic sentence, and a logical, effective flow of ideas.</li> </ul>	<ul style="list-style-type: none"> <li>Most paragraphs are organized around a coherent point and contain a topic sentence, and for the most part, the flow of ideas is logical and effective.</li> </ul>	<ul style="list-style-type: none"> <li>A significant number of paragraphs are not organized around a coherent point, or do not contain a topic sentence, or contain ideas that do not connect logically and effectively.</li> </ul>	<ul style="list-style-type: none"> <li>Many paragraphs are unorganized and ramble from one idea to another; topic sentences are missing; ideas do not connect in a logical or effective manner.</li> </ul>
<b>CITATIONS 5%</b>	<b>A: Excellent 10-9 pts</b>	<b>B: Good 8-7 pts</b>	<b>C: Satisfactory 6-5 pts</b>	<b>D: Unsatisfactory 4-3 pts</b>
	<ul style="list-style-type: none"> <li>All sources that should be cited are cited;</li> <li>All citations are complete and properly formatted;</li> <li>Reference list is complete</li> <li>Reference list is properly formatted using Department citation style.</li> </ul>	<ul style="list-style-type: none"> <li>Most sources that should be cited are cited;</li> <li>Most citations are complete and properly formatted;</li> <li>Reference list is complete;</li> <li>Reference list uses Department style, but includes minor formatting errors.</li> </ul>	<ul style="list-style-type: none"> <li>Many sources that should be cited are not cited;</li> <li>Many citations are incomplete or improperly formatted;</li> <li>Reference list is missing a few items;</li> <li>Reference list includes formatting errors; does not always follow Department style.</li> </ul>	<ul style="list-style-type: none"> <li>Few or no sources that should be cited are cited;</li> <li>Citations are incomplete and improperly formatted;</li> <li>Reference list is missing many items;</li> <li>Reference list is improperly formatted; does not follow Department style.</li> </ul>
<b>MECHANICS 10%</b>	<b>A: Excellent 10-9 pts</b>	<b>B: Good 8-7 pts</b>	<b>C: Satisfactory 6-5 pts</b>	<b>D: Unsatisfactory 4-3 pts</b>
	<ul style="list-style-type: none"> <li>Clear hierarchy of first and second order headings;</li> <li>All tables and figures numbered consecutively;</li> <li>Table numbering is separate from figure numbering;</li> <li>Tables and figures are presented in the order in which they are discussed;</li> <li>Tables and figures come after they are first mentioned; Tables and figures are placed close to first mention;</li> <li>Body text is one-and-a-half or double spaced;</li> <li>One inch margins;</li> <li>10-12 point font size</li> </ul>	<ul style="list-style-type: none"> <li>Hierarchy of first and second order headings;</li> <li>Almost all tables and figures numbered consecutively; reader can figure out which figures/tables go along with the text;</li> <li>Table numbering is separate from figure numbering;</li> <li>Most tables &amp; figures are presented in the order in which they are discussed; reader can figure out which figures/tables go along with the text;</li> <li>Most tables and figures come after they are first mentioned; Tables and figure are placed close to first mention;</li> <li>Body text is one-and-a-half or double spaced;</li> <li>One inch margins;</li> <li>10-12 point font size</li> </ul>	<ul style="list-style-type: none"> <li>Hierarchy of first and second order headings is not always unclear;</li> <li>A number of tables and figures are not numbered consecutively; reader is somewhat confused relating text to tables/figures;</li> <li>Numbering of tables and figures is mixed together; some tables are called figures;</li> <li>A number of tables and figures are presented out of order; reader is somewhat confused relating text to tables/figures;</li> <li>Some tables/figures come after first mention and some come before; Placement of figures and tables is not always close to first mention;</li> <li>Body text is single- spaced or more than double-spaced;</li> <li>Margins are slightly more or less than one inch;</li> <li>Font size is slightly less than 10 point or slightly more than 12 point</li> </ul>	<ul style="list-style-type: none"> <li>Hierarchy of first and second order headings isn't clear or doesn't exist;</li> <li>Many tables and figures are not numbered consecutively; some tables/figures are missing numbers; reader is confused relating text to tables/figures;</li> <li>Numbering of tables and figures is mixed together; some tables are called figures; some tables/figures are missing numbers; reader gets lost;</li> <li>Many tables and figures are presented out of order; reader is confused relating text to tables/figures;</li> <li>Some tables/figures come first mentioned but many come before; Tables/figures placed sufficiently far from first mention that reader has trouble locating them;</li> <li>Body text is single- spaced or more than double-spaced;</li> <li>Margins are clearly more than or less than one inch;</li> <li>Font size is clearly less than 10 point or more than 12 point</li> <li>The combination of margins and font</li> </ul>

				size indicate the writer is either trying to use up space to meet a page minimum or trying to cram too much information into a page maximum;
<b>Graphics 15%</b>	<b>A: Excellent 10-9 pts</b>	<b>B: Good 8-7 pts</b>	<b>C: Satisfactory 6-5 pts</b>	<b>D: Unsatisfactory 4-3 pts</b>
	<ul style="list-style-type: none"> <li>Graphics are well designed and aesthetically appealing based on standard accepted formats (appropriately labeled &amp; sized; appropriate use of color, easy to read and understand);</li> <li>Graphics draw readers in by catching their interest and attention;</li> <li>Graphics are neither sparse nor busy;</li> <li>All graphics/images/maps are at an appropriate resolution;</li> <li>All graphics are appropriate for the context.</li> </ul>	<ul style="list-style-type: none"> <li>Most graphics are well designed and aesthetically appealing based on standard accepted formats; some graphics contain minor design issues;</li> <li>Graphics draw most readers in by catching their interest and attention;</li> <li>Graphics are somewhat sparse or busy;</li> <li>Most graphics/images/maps are at an appropriate resolution;</li> <li>Most graphics are appropriate for the context..</li> </ul>	<ul style="list-style-type: none"> <li>A significant number of graphics are poorly designed or are not aesthetically appealing based on standard accepted formats; or some graphics contain major design issues;</li> <li>Graphics catch the attention of some readers;</li> <li>Graphics are too sparse or too busy;</li> <li>Many graphics/images/maps have an inappropriate resolution;</li> <li>Many graphics are inappropriate for the context.</li> </ul>	<ul style="list-style-type: none"> <li>A significant number of graphics are poorly designed, are not aesthetically appealing and/or do not follow any standard accepted formats;</li> <li>Graphics catch the attention of only a few readers;</li> <li>Graphics poorly prepared and detract from poster;</li> <li>All graphics/imagery/ maps are at an inappropriate resolution;</li> <li>Most graphics are inappropriate for the context.</li> </ul>

### Geography/Geoscience Poster Grading Rubric

CONTENT & SUBJECT KNOWLEDGE 40%	A: (10-9 pts) Excellent	B: (8-7 pts) Good	C: (6-5 pts) Satisfactory	D: (4-3 pts) Unsatisfactory
<b>Research Effort &amp; Accuracy</b> <ul style="list-style-type: none"> <li>• Project definition</li> <li>• Fit in scholarly framework</li> <li>• Accuracy &amp; relevance</li> <li>• Methodology</li> <li>• Analysis &amp; results</li> <li>• Conclusion</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Collegiate level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Amount of information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ORGANIZATION 15%	A: (10-9 pts) Excellent	B: (8-7 pts) Good	C: (6-5 pts) Satisfactory	D: (4-3 pts) Unsatisfactory
<ul style="list-style-type: none"> <li>• Logical, interesting sequence</li> <li>• Visual hierarchy</li> <li>• Component sections</li> <li>• Flow between columns/frames</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WRITING 20%	A: (10-9 pts) Excellent	B: (8-7 pts) Good	C: (6-5 pts) Satisfactory	D: (4-3 pts) Unsatisfactory
<b>Grammar &amp; Composition</b> <ul style="list-style-type: none"> <li>• Grammar/spelling</li> <li>• Concise, coherent writing</li> <li>• Existence of redundancies</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Citations</b> <ul style="list-style-type: none"> <li>• Sources cited</li> <li>• Citation completeness &amp; formatting</li> <li>• Reference list completeness &amp; formatting</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VISUAL APPEARANCE 25%	A: (10-9 pts) Excellent	B: (8-7 pts) Good	C: (6-5 pts) Satisfactory	D: (4-3 pts) Unsatisfactory
<b>Text</b> <ul style="list-style-type: none"> <li>• Readability from five feet</li> <li>• Column width</li> <li>• Titles &amp; subtitles</li> <li>• Visual hierarchy of text</li> <li>• Application of text hierarchy</li> <li>• Colors &amp; fonts</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Graphics</b> <ul style="list-style-type: none"> <li>• Design</li> <li>• Attention-grabbing</li> <li>• Sparse/busy</li> <li>• Appropriate resolution</li> <li>• Appropriate for context</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Overall design &amp; layout</b> <ul style="list-style-type: none"> <li>• Layout &amp; visually appeal</li> <li>• Visual balance</li> <li>• Graphics placement</li> <li>• Use of color</li> <li>• Column length/alignment</li> <li>• Background/foreground contrast</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>CONTENT/SUBJECT KNOWLEDGE 40%</b>	<b>A: Excellent; 10-9 pts</b>	<b>B: Good; 8-7 pts</b>	<b>C: Satisfactory; 6-5 pts</b>	<b>D: Unsatisfactory; 4-3 pts</b>
<b>Research Effort and Accuracy</b>	<ul style="list-style-type: none"> <li>• Poster defines project objective, problem statement, or research question in a clear, coherent way;</li> <li>• Statement of how project fits into framework of existing research is clear and compelling, and is based on appropriate scholarly resources;</li> <li>• Contains completely accurate information and explanations of key concepts; all information is directly related to project thesis;</li> <li>• Clearly and concisely describes an appropriate methodology; readers could replicate methodology;</li> <li>• Discussion of results and analysis is clear and concise, and addresses and interprets all key points correctly;</li> <li>• Contains a clear, coherent conclusion that shows thoughtful evaluation of evidence presented and that provides good suggestions for future research.</li> </ul>	<ul style="list-style-type: none"> <li>• Poster defines project objective, problem statement, or research question;</li> <li>• Statement of how project fits into framework of existing research is based on appropriate scholarly resources;</li> <li>• Contains no significant errors regarding accuracy of information or explanations of key concepts; all information related to project thesis;</li> <li>• Describes an appropriate methodology; readers could likely replicate methodology;</li> <li>• Discussion of results and analysis contains minor mistakes addressing or interpreting key points;</li> <li>• Contains a conclusion that shows evaluation of the evidence presented; provides suggestions for future research.</li> </ul>	<ul style="list-style-type: none"> <li>• Poster does not define project objective, problem statement, or research question clearly;</li> <li>• Statement of how project fits into framework of existing research is unclear, unconvincing, or not entirely based on appropriate resources;</li> <li>• Contains some significant inaccuracies or incorrect explanations of key concepts; contains information not directly related to project thesis;</li> <li>• Methodology is unclear or not entirely appropriate; replicating methodology would be difficult;</li> <li>• Results and analysis are unclear or contain some big mistakes addressing or interpreting key points;</li> <li>• Conclusion is somewhat incoherent and provides limited evaluation of evidence presented; provides limited or contrived suggestions for future research.</li> </ul>	<ul style="list-style-type: none"> <li>• Poster does not define project objective, problem statement, or research question;</li> <li>• Statement of how project fits into framework of existing research is missing or is based on inappropriate resources;</li> <li>• Contains a lot of inaccuracies or incorrect explanations of key concepts; much information is unrelated/ unconvincing of thesis;</li> <li>• Methodology is not described or is inappropriate; readers would not be able to replicate methodology;</li> <li>• Discussion of results and analysis is missing or fails to address or correctly interpret many key points;</li> <li>• Conclusion is missing or provides no evaluation of the evidence presented; no suggestions for future research.</li> </ul>
<b>Collegiate level</b>	<ul style="list-style-type: none"> <li>• Level is consistently appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>• Level is generally appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>• Portions too elementary or sophisticated.</li> </ul>	<ul style="list-style-type: none"> <li>• Level is consistently too elementary or too sophisticated.</li> </ul>
<b>Contextual Layout</b>	<ul style="list-style-type: none"> <li>• Sufficient content to fill allowed poster space.</li> </ul>	<ul style="list-style-type: none"> <li>• Slightly too much or too little information; poster looks a bit cramped or a bit bare.</li> </ul>	<ul style="list-style-type: none"> <li>• Too little or too much information crammed into allowed space; poster looks cramped or bare.</li> </ul>	<ul style="list-style-type: none"> <li>• Too little or too much information crammed into allowed space; poster looks really cramped or really bare.</li> </ul>
<b>ORGANIZATION 15%</b>	<b>A: Extremely well organized; flows well; 10-9 pts</b>	<b>B: Generally well organized; flows; 8-7 pts</b>	<b>C: Somewhat organized; awkward flow; 6-5 pts</b>	<b>D: Not organized; does not flow; 4-3 pts</b>
	<ul style="list-style-type: none"> <li>• Information presented in a logical and interesting sequence;</li> <li>• Information has a clear visual hierarchy;</li> <li>• Information clearly divided into component sections (e.g. introduction, methodology, etc.);</li> <li>• Flow from column to column or from frame to frame and between graphics and text is clear and easy to follow; it's obvious to a reader where to go and what to read next.</li> </ul>	<ul style="list-style-type: none"> <li>• Most information presented in a logical sequence;</li> <li>• Information has a visual hierarchy;</li> <li>• Information is divided into component sections (e.g. introduction, site description, methodology etc.);</li> <li>• Flow from column to column or from frame to frame and between graphics and text is clear to follow; reader can determine where to go and what to read next.</li> </ul>	<ul style="list-style-type: none"> <li>• Sequence of information not always logical or interesting;</li> <li>• Visual hierarchy of information is not clear.</li> <li>• Information not always clearly divided into sections (e.g. methodology mixed in with introduction);</li> <li>• Flow from column to column or from frame to frame and between graphics and text is somewhat confusing; reader not always sure where to go or what to read next.</li> </ul>	<ul style="list-style-type: none"> <li>• Sequence of information illogical and uninteresting;</li> <li>• There is no visual hierarchy to information;</li> <li>• Information not divided into component sections (e.g. introduction, site description, methodology);</li> <li>• Flow from column to column or from frame to frame and between graphics and text is confusing; reader does not know where to go or what to read next.</li> </ul>

<b>WRITING 20%</b>	<b>A: Excellent 10-9 pts</b>	<b>B: Good 8-7 pts</b>	<b>C: Satisfactory 6-5 pts</b>	<b>D: Unsatisfactory 4-3 pts</b>
Grammar & composition	<ul style="list-style-type: none"> <li>No grammar or spelling mistakes;</li> <li>Concise sentences; bulleted points may be incomplete sentences, but contain sufficient information that reader clearly understands the point;</li> <li>No redundant information.</li> </ul>	<ul style="list-style-type: none"> <li>Minor grammar spelling mistakes; errors insufficient to distract reader;</li> <li>Some wording is less than concise; bulleted points longer or shorter than necessary, but reader can still understand the point</li> <li>Some minor redundancies.</li> </ul>	<ul style="list-style-type: none"> <li>Significant grammar and spelling errors;</li> <li>Writing is wordy and unclear; bulleted points so wordy or so terse reader has trouble understanding the point;</li> <li>Multiple redundancies.</li> </ul>	<ul style="list-style-type: none"> <li>Consistently poor grammar and multiple spelling errors;</li> <li>Writing is incomprehensible;</li> <li>Lots of redundant information.</li> </ul>
Citations	<ul style="list-style-type: none"> <li>All sources are cited;</li> <li>All citations are complete and properly formatted;</li> <li>Reference list is complete and properly formatted using Department citation style;</li> </ul>	<ul style="list-style-type: none"> <li>Most sources are cited;</li> <li>Most citations are complete and properly formatted;</li> <li>Reference list is complete and uses Department style, but includes minor formatting errors;</li> </ul>	<ul style="list-style-type: none"> <li>Many sources are not cited;</li> <li>Many citations are incomplete or improperly formatted;</li> <li>Reference list is missing a few items and includes formatting errors; does not always follow Department style;</li> </ul>	<ul style="list-style-type: none"> <li>Few or no sources are cited;</li> <li>Citations are incomplete and improperly formatted;</li> <li>Reference list is incomplete and improperly formatted; does not follow Department style;</li> </ul>
<b>VISUAL APPEARANCE 25%</b>	<b>A: Excellent 10-9 pts</b>	<b>B: Good 8-7 pts</b>	<b>C: Satisfactory 6-5 pts</b>	<b>D: Unsatisfactory 4-3 pts</b>
Text	<ul style="list-style-type: none"> <li>Combination of font, text size and line spacing is easy to read from a distance of five feet;</li> <li>Body text is divided into columns or blocks of text that are narrow enough for reader’s eyes to move easily from the end of one line of text to start of the next line of text;</li> <li>Title (and subtitle) is significantly larger or different from poster content; clearly attracts attention;</li> <li>A clear visual hierarchy of headings, subtitles, body text, and figure caption text exists (based on font, text size, color, alignment, and/or spacing);</li> <li>Text hierarchy and formatting is applied consistently;</li> <li>Appropriate and artistic use of colors and fonts for emphasis or to aid organization of poster information.</li> </ul>	<ul style="list-style-type: none"> <li>Combination of font, text size and line spacing can be read from a distance of five feet;</li> <li>Body text is divided into columns or blocks of text that are narrow enough for a reader’s eyes to move from the end of one line of text to the start of the next line of text;</li> <li>Title (and subtitle) is larger or different from poster content; attracts attention of most readers;</li> <li>A visual hierarchy of headings, subtitles, body text, and figure caption text exists (based on font, text size, color, alignment, and/or spacing);</li> <li>Minor inconsistencies in application of text hierarchy and formatting; doesn’t detract from poster appearance or comprehension;</li> <li>Mostly appropriate use of colors and fonts for emphasis or to aid organization of poster information.</li> </ul>	<ul style="list-style-type: none"> <li>Combination of font, text size and line spacing is somewhat difficult to read from distance of five feet;</li> <li>Body text is divided into columns or blocks of text that are too wide; difficult for reader’s eyes to move from the end of one line of text to the start of the next line of text;</li> <li>Title (and subtitle) does not stand out significantly from content; title doesn’t attract much attention;</li> <li>Visual hierarchy of headings, subtitles, body text, and figure caption text is unclear; too little or too much variation (based on font, text size, color, alignment, and/or spacing);</li> <li>Application of text hierarchy and formatting is inconsistent and detracts from poster appearance and reader comprehension;</li> <li>Minimal color/font variation; or, slightly too many colors/fonts, which detracts from poster organization.</li> </ul>	<ul style="list-style-type: none"> <li>Combination of font, text size and line spacing is difficult to read from distance of five feet;</li> <li>Body text is divided into columns or blocks of text that are too wide for a reader to keep their place as their eyes move from line to line;</li> <li>Title (and subtitle) does not stand out from poster content; title does not attract attention;</li> <li>No visual hierarchy of headings and subtitles, or body text and figure caption text exists; no variation exists or variations exist but do not reveal a hierarchy;</li> <li>Text hierarchy not evident; detracts significantly from poster appearance and reader comprehension;</li> <li>No color/font variation – poster looks boring, or too much color/font variation – poster looks like a circus.</li> </ul>
Graphics	<ul style="list-style-type: none"> <li>Graphics are well designed and aesthetically appealing based on standard accepted formats (appropriate labeling, size, use of color; easy to read and</li> </ul>	<ul style="list-style-type: none"> <li>Most graphics are well designed and aesthetically appealing based on standard accepted formats; some graphics contain minor design issues;</li> </ul>	<ul style="list-style-type: none"> <li>A significant number of graphics are poorly designed or not aesthetically appealing based on standard accepted formats; or some graphics contain</li> </ul>	<ul style="list-style-type: none"> <li>A significant number of graphics are poorly designed, are not aesthetically appealing and/or do not follow any standard accepted formats;</li> </ul>

	<p>understand);</p> <ul style="list-style-type: none"> <li>Graphics draw readers in by catching their interest and attention;</li> <li>Graphics are neither sparse nor busy;</li> </ul>	<ul style="list-style-type: none"> <li>Graphics draw most readers in by catching their interest and attention;</li> <li>Graphics are somewhat sparse or busy;</li> </ul>	<p>major design issues;</p> <ul style="list-style-type: none"> <li>Graphics catch the attention of some readers;</li> <li>Graphics are too sparse or too busy;</li> </ul>	<ul style="list-style-type: none"> <li>Graphics catch the attention of only a few readers;</li> <li>Graphics poorly prepared and detract from poster;</li> </ul>
<p>Overall design and layout</p>	<ul style="list-style-type: none"> <li>Poster is visually appealing and attracts the attention of readers due to artistic layout of graphics, text and white space; space is used effectively and the visual flow of information is clear;</li> <li>Visual balance (spacing between components) is logical and consistent; attracts readers;</li> <li>Graphics are artistically interspersed with text; graphics do not interrupt flow of text; graphics clearly enhance the message of the poster;</li> <li>Color is used effectively and artistically to attract readers and to emphasize key points or headings;</li> <li>Columns of similar length are aligned at the top or the bottom;</li> <li>Significant contrast and differentiation exists between background (whether a color, pattern, or image) and foreground; background doesn't detract from readability of information.</li> </ul>	<ul style="list-style-type: none"> <li>Poster is visually appealing and attracts the attention of most readers due to appropriate layout of graphics, text and white space; space is used effectively and the visual flow of information is clear;</li> <li>Minor inconsistencies in visual balance; insufficient to detract from poster appearance or reader comprehension;</li> <li>Graphics are interspersed with text; most graphics do not interrupt flow of text; graphics enhance message of poster;</li> <li>Color is used to attract readers and to emphasize key points or headings;</li> <li>Most columns of similar length are aligned at the top or the bottom;</li> <li>Contrast and differentiation exists between background (whether a color, pattern, or image) and foreground; background doesn't significantly detract from readability of information.</li> </ul>	<ul style="list-style-type: none"> <li>Poster is only somewhat appealing; attracts the attention of few readers due to some inappropriate layout of graphics, text and white space; space is not used effectively and the visual flow of information is unclear;</li> <li>Visual balance is not always logical or is inconsistent; detracts from poster appearance; readers lose interest;</li> <li>Graphics are interspersed with text but some graphics interrupt flow of text; some graphics don't enhance message of poster or are out of context or inappropriate;</li> <li>Color is used color ineffectively; colors do not help attract readers and do not help emphasize key points or headings;</li> <li>Many columns of similar length are not aligned at the top or the bottom;</li> <li>Contrast and differentiation between background (whether a color, pattern, or image) and foreground isn't sharp enough; background detracts from readability of information.</li> </ul>	<ul style="list-style-type: none"> <li>Poster not visually appealing and does not attract the attention of readers due to inappropriate layout of graphics, text and white space; space is not used effectively and the visual flow of information is unclear;</li> <li>No visual balance to components; detracts significantly from poster appearance; readers not attracted to poster;</li> <li>Graphics are interspersed with text but graphics interrupt flow of text; many graphics do not enhance message of poster or are out of context or are inappropriate;</li> <li>Colors clash or are completely lacking; colors don't attract readers and don't help emphasize key points or headings;</li> <li>Many columns of similar length are not aligned at the top or the bottom;</li> <li>Contrast and differentiation between background (whether a color, pattern, or image) and foreground is weak; information is significantly difficult to read.</li> </ul>

## Reference List and Citation Guide

A reference list includes only those resources that you actually cite in your paper/presentation/poster; every resource listed in the reference list should be cited somewhere in the paper/presentation/poster and every source cited in the paper/presentation/poster should appear in the reference list. The reference list must include enough information so that the reader can obtain any of the resources you used.

The general order of information included in each reference is the same, regardless of the type of resource: author, date, title, pages if appropriate, publisher. Do not type out full first or middle names, just use initials.

### Books

**General format:** Author last name, first and middle initials. With multiple authors, the first author is listed last-name first followed by initials; all other authors are listed by initials first, followed by last name. If there are two authors, separate their names by “and.” If there are more than two authors, separate all author names with a comma except for last two names – separate them with a comma and “and.” Publication date. *Book title* (italicize; capitalize first word and formal names). Place of publication: Publisher.

#### One author:

Knighton, D. 1984. *Fluvial forms and processes*. London: Edward Arnold.

#### Two or more authors:

Gregory, K.J. and D.E. Walling. 1973. *Drainage basin form and process: A geomorphological approach*. London: Edward Arnold.

Gordon, N.D., T.A. McMahon, and B.L. Finlayson. 1992. *Stream hydrology: An introduction for ecologists*. Chichester: John Wiley & Sons.

#### Book with editors:

Foulger, G.R. and D.M. Jurdy, eds. 2007. *Plates, plumes, and planetary processes*. Special paper 430. Boulder: The Geological Society of America.

#### Chapter in an edited volume:

Mickelson, D.M. 1987. Central lowlands. In *Geomorphic systems of North America*, ed. W.L. Graf, 111-118. Boulder: The Geological Society of America.

### Print Journal Articles

**General format:** Author last name, first and middle initials. With multiple authors, the first author is listed last-name first followed by initials; all other authors are listed by initials first, followed by last name. List all names for up to 10 authors; if more than 10 authors, list the first author and “et al.” (there is a period after “al” because it’s an abbreviation; et al. means “and others”). Publication Date. Title of article (capitalize first word and formal nouns). *Title of Publication* (italicize; capitalize first letters of words), volume (issue number): page numbers.

#### Print article:

Fulford, J.M. 2001. Accuracy and consistency of water-current meters. *Journal of the American Water Resources Association* 37(5):1215-1224.



Harrison, L.R. and E.A. Keller. 2007. Modeling forced pool-riffle hydraulics in a boulder-bed stream, southern California. *Geomorphology* 83:232-248.

**Article in conference proceedings:**

Cannatelli, K.M. and J.C. Curran. 2009. The processes surrounding channel evolution following a partial dam removal on the coastal plain of Virginia. In: *33<sup>rd</sup> IAHR Congress: Water Engineering for a Sustainable Environment*. August 9-14, 2009, Vancouver, BC. IAHR; 3062-3069.

Glassow, M.A., O.A. Chadwick, R.L. Perroy, and J.T. Howarth. 2009. Alluvial history and human prehistory in Pozo Canyon, Santa Cruz Island, California. In *Proceedings of the Seventh California Islands Symposium*, eds. C.C. Damiani and D.K. Garcelon, 53-65. Arcata, CA: Institute for Wildlife Studies.

**Technical report:**

WMO. 2010. *Manual on Stream Gauging: Vol II – Computation of Discharge*. World Meteorological Organization; WMO-No. 1044. Geneva: WMO.

**Article in a daily newspaper:**

Yoon, D.K. 2000 Dec 26. DNA clues improve outlook for red wolf. *New York Times*, Section F:10 (col. 1).

## Online Journal Articles and Books

**General format:** Same format as print journal articles, but if available, you should add “doi: doi number”. If there is no doi, you may need to add a URL and the date you accessed the article.

Many print journal articles are also available digitally online. If you access a print journal article digitally and the article has a DOI (digital object identifier), add the doi. If the digital version of a print article also has a volume (issue) and page numbers, include them. Some digital journal articles are available only in digital form, in which case there may be no issue or page numbers but there may be another type of identifier, which you should include, along with the doi. For some articles there may be no doi and no print version, in which case you should include the URL and the date you accessed the information. The access date is important because publishers may reorganize their web sites or may remove old information as new information is added, in which case someone trying to obtain your resource may not find it.

**Print article accessed in digital form; no doi provided and article is also available in print:**

Griffiths, G.A. 1980. Hydraulic geometry relationships of some New Zealand gravel bed rivers. *Journal of Hydrology (NZ)* 19(2):106-118.

**Print article accessed in digital form; doi provided:**

Jackson, R.G. 1975. Velocity–bed-form–texture patterns of meander bends in the lower Wabash River of Illinois and Indiana. *GSA Bulletin* 86(11):1511-1522, doi: 10.1130/0016(1975)86.

**Digital form only article:**

Jiménez-Gonzalez, I., C. Rodríguez-Navarro, and G.W. Scherer. 2008. Role of clay minerals in the physicommechanical deterioration of sandstone. *Journal of Geophysical Research* 113:F02021, doi: 10.1029/2007JF000845.

**Digital form technical report:**

Holmes, R.R. Jr., P.J. Terrio, M.A. Harris, and P.C. Mills. 2001. *Introduction to field methods for hydrologic and environmental studies*. U.S. Geological Survey Open-File Report 01-50. Denver: USGS. [http://il.water.usgs.gov/pubs/ofr01-50\\_chapter1.pdf](http://il.water.usgs.gov/pubs/ofr01-50_chapter1.pdf) (accessed 10/2/12).

## Web Sites

**General format:** Author (if known) or organization hosting the site if no author is listed. Date of publication; date of last update (if available). Title of web site. Place of publication: Publisher. URL (date accessed).

The author may be a person or an organization. If there is no date of publication, use the last-modified date, and if there is no last-modified date, then type “n.d.” To find the title of the web site you may need to back up in the URL to see what the top page is from which the page you’re referencing is linked. Include the title of the web site and the title of the page you are accessing, if appropriate.

Lemke, K.A. Last update 9/5/12. Stream flow. *Geography/Geology 352: Geomorphology*. UWSP: Geography/Geology Department. [http://www4.uwsp.edu/geo/faculty/lemke/geomorphology/lectures/02\\_stream\\_flow.html](http://www4.uwsp.edu/geo/faculty/lemke/geomorphology/lectures/02_stream_flow.html) (accessed 10/26/12).

Danehy, R.J. and J.M. Hassett. 1996. Stream habitat quantification by use of the Froude Number. *Stream Systems Technology Center – Stream Notes*. Fort Collins: USDA Forest Service, Stream Systems Technology Center. <http://stream.fs.fed.us/news/streamnt/jan96/jan96a3.htm> (accessed 10/26/12).

## Citing Material in the Body of Your Paper

Citations are important not only because they allow listeners or readers to check out your information sources if they are so inclined, citations also lend credibility to your work. Citations let the listener/reader know that you are not making things up. When several sources include the same information, you want to list all of those sources because this increases the credibility of the information – it’s not just one scientist who found something to be true; many researchers agree with this finding.

Citations embedded within the body of your paper include last names and publication date only. Citations do not include first names, do not include initials, and do not include titles or publishers or any other details. All the details are in the reference list. If there is just one author, the citation includes the author’s last name and the date. If there are two authors, the citation includes both author last names and the date. If there are three or more authors, the citation includes the first author’s name and “et al.” and the date.

Examples:

Fulford (2001) determined that Swoffer digital current meters and Price Type-AA current meters had similar accuracies, but the Swoffer meters did not always meet the stringent accuracy limits Swoffer claimed they met.

When using current meters to calculate discharge, Gordon et al. (1992) suggest taking one velocity reading per meter of channel width; however other sources recommend spacing the readings so that about five percent of the total flow passes through any one section (Holmes et al. 2001; Sauer and Meyer 1992; Shedd 2011).

When using the author’s name as the subject of a sentence, as in the first example above, put the date in parentheses immediately following the author’s name. If there are two authors, use both author last names as the subject and put the date in parentheses. If there are three or more authors, as with Gordon et al. in the second example above, use the first author’s last-name and “et al.” as the subject and put the date in parentheses.

When making a statement followed by the source of the information, as in the last example above, the author names and dates all go in parentheses after the statement. Sometimes the statement and its sources occur in the middle of a sentence, and sometimes at the end of the sentence. When the citation occurs at the end of a sentence, the period for the sentence comes after the parentheses, not before them. There are no commas or other punctuation marks

separating the author name(s) from the date, except in the case where you use et al., in which case you need a period after “al” because it’s an abbreviation. If you found the same information in several sources, such in the last example above, use a semi-colon to separate the individual sources.

If you have multiple papers/books by the same author published in the same year, attach “a,” “b,” etc. to the end of the year in both the reference list and the embedded citation in the paper.

## Other Reference and Citation Guides

The Geography/Geology Department reference list and citation guide is based on the system used by the Annals of the Association of American Geographers. This system is very similar to those used in other key publications in the disciplines of geography and geology, including The Journal of Geology, GSA Bulletin, and The Professional Geographer.

Other Reference and Citation Guides:

Council of Science Editors: The CSE manual contains three systems of citing information, of which the name-year system is very similar to the format outlined above. The main differences relate to punctuation and formatting, not the information included, or the ordering of the information. Information and examples are available at: <http://writing.wisc.edu/Handbook/DocCBE.html> and <http://library.osu.edu/help/research-strategies/cite-references/cse/>.

The Chicago Manual of Style: The CMS manual documents two systems of citing information, of which the author-data system is very similar to the format outlined above. Differences arise in punctuation, writing-out authors’ entire first names rather than using initials only, and placement of the date in the reference list (but not the embedded citation). The information included in the citation format is the same as listed above. Information and examples are available at: <http://www.chicagomanualofstyle.org/home.html>.

American Psychological Association: APA is another widely-used style format. Information is available at: <http://www.apastyle.org/>.

*"I like pigs. Dogs look up to us. Cats look down on us. Pigs treat us as equals." - Sir Winston Churchill*

# BLATHER 101:

## OBFUSCATION AND CLICHÉS IN COMMUNICATION

As you will soon discover, I react venomously to careless communication, and especially when it continues after I take the time to review and offer constructive criticism of your work. Please enlighten me no further about such remarkable phenomena as the "ingenious rocks", "sedentary rocks", "metaphysical rocks", "carnivorous forests", "Himalayan martian climbers", "incestivores", and other such hitherto undiscovered wonders of the world; your predecessors have cast all the illumination upon these subjects as my laughing gut can endure.

Aside from the usual careless spelling and grammar mistakes ("a mistake is an error that should not have happened"), I come down hard on poor citations, and stylistic mannerisms that render your message obscure. Two of the latter in particular I consistently find rampant in student writing: passive voice, and trite phrases. Years of reading student and professional submissions brings me to the sad conclusion that many contemporary graduating college students (and no few active professionals nowadays) do not even know what these are, let alone realize their impact upon professional credibility. Not to entirely fault students; I can readily imagine where they receive their stylistic modeling now.

Do not rely solely on spell-checkers and grammar-checkers to catch all mistakes for you. These often miss over half of the flaws, catching only the most blatant. That wonderful machine has no more brains than any other kilogram of copper and plastic; would you allow a toilet float to perform your heart surgery or pack your parachute? Communication is as essential to your social well-being as a heartbeat or a soft landing is to your physical. A human mind (YOURS) must maintain oversight. YOU should proofread all of your communication!

Passive voice *is* a valid grammatical construct. The problem is that most writers, especially in the sciences and in government, use it far to excess. Allow me to illustrate what it is, and what is the alternative.

- Passive Voice: when [something] **is done by** [someone]
- Active Voice: when [someone] did [something]

**PASSIVE:** In what might **be called** a revolt, 490 **grades earned by** angered students **were taken to** the tired ombudsman. A plan of equitable settlement **was conceived such that** the ill-considered criteria would get altered **and the old scores revised, based on standards that were agreed upon to be contracted with a syllabus clause in which the exact requirements could be specified.** The unexpected result of this being done **was that** even more protest **was raised after new** procedures were **misunderstood**, so that **grades were reduced further** once recalculated and returned.

Can you really tell who is doing [that previous verb is future perfect, *not* passive voice] what? Nineteen passive verbs in three run-on sentences *IS* excessive, and I argue that much of the meaning failed to transfer. Try it again:

**ACTIVE**: In a revolt, angry students took the 490 grades that they received to the ombudsman. Despite fatigue, that official conceived a plan to equitably alter the dissatisfying criteria and resultant scores. The instructor would specify exact requirements as a contract clause in the syllabus, and revise the grades. However, no one anticipated that this would reduce grades further, and student protest grew even louder upon reposting.

See? Twenty-five percent shorter (88 down to 65 words), yet now you know much more clearly WHO did WHAT, and WHEN. The active voice also forced the author to clarify those run-on sentences.

Passive voice also includes verbs that you use as noun modifiers (e.g., "angered students--WHO angered them?), or the implicit form of passive voice that lacks a "was", "got" or "by" (e.g., "...grades based on..."—WHO did the basing?). Grammar-checkers usually do not detect any of these forms. In that abysmal paragraph above, my word processor (set to "formal" grammar) found only six passive verbs and claimed that no sentences were passive. Stupid machine; use *your* human brain!

Any time more than 20% of your verbs are passive, you have probably crossed into the realm of unclear communication. I suspect that two subconscious motivations account for why this happens. First, the writer is uncertain about the statement's validity, and seeks to avoid making an absolute commitment. That contradicts the very purpose of professional communication. Make your points in the declarative, and if you are wrong, be wrong boldly. Do not be an evasive, timid weasel. The other reason for too much passive voice I suspect is the widespread aversion to speaking in first person, perhaps also due to fear of commitment. John Fraser Hart, a superb writer and former AAG Annals editor, made a valid point when he encouraged people who had done something to simply say, "I did it." To artificially force statements into the third person ("It was done by me") adds nothing but extra verbiage, with no gain in content communication.

My other stylistic object of ire is the employment of tiresome meaningless phrases, and often extensive strings of them. With not entirely facetious interpretations, look through (and AVOID) the trite phony bologna expressions on my Carlinesque list below. These add nothing to your communication effort! Incidentally, note the frequency of passive voice in the vacuous nonsense (phrases to avoid) on the left side.

# Scholarly Pretensions: A Cynic's Guide to Translating Research Lingo

WHEN THEY SAY...	THEY APPEAR TO MEAN...
It has long <b>been known</b> that...	I never bothered to look it up...
...of great theoretical and practical value...	...I personally find it interesting...
This method <b>was chosen</b> as especially suitable...	The guy at the next desk could do it for me...
High purity...	I don't know what the hell is in this stuff, except for the exaggerations on the manufacturer's label...
Very high purity...	
Extremely high purity...	
Super-purity...	
Referentially pure...	
...a fiducial reference line...	... I measured from a scratch that I made...
Ten samples <b>were chosen</b> for detailed study...	My other fifty samples made no sense so I'm not telling you about them...
... <b>were handled</b> with utmost care during analysis...	...they never hit the floor...
Typical results <b>are shown</b> ...	These are the best that I got...
Although some detail <b>was lost</b> in the reproduction, it is clear in the original image that...	I screwed up the copying so badly that it now is impossible to tell...
Presumably at longer times and with more study...	I never did find out, but finance me some more and I'll keep looking...
The accuracy of our model is <ul style="list-style-type: none"> <li>• excellent</li> <li>• good</li> <li>• satisfactory</li> <li>• fair</li> <li>• as good as can be expected</li> </ul>	<ul style="list-style-type: none"> <li>• fair</li> <li>• poor</li> <li>• doubtful</li> <li>• imaginary</li> <li>• I have to say something...</li> </ul>
My results will <b>be reported</b> later...	Maybe I'll actually do this some time...
The most reliable values are Jones'...	Jones is a friend of mine...

It <b>is believed</b> that...	
It <b>is suggested</b> that...	I think...
It may be that...	
It <b>is generally believed</b> that...	I disagree...
It is clear that much additional work will <b>be required</b> before understanding...	I have no idea of what happened here...
Unfortunately, a theory to account for these effects has not <b>been formulated</b> ...	...and nobody else knows either...
...correct within one order of magnitude...	...completely wrong...
It <b>is hoped</b> that further work will be stimulated by this report ...	This paper isn't too good, but nobody else's is any better...
Thanks <b>are given</b> to Dick for assistance and Jane for valuable discussions...	Dick did all the work and Jane interpreted what it means...

I very well may be that instructor above who will provoke the grade rebellion, but after reading this you have fair warning as to the criteria that I will employ and the deficiencies that I will watch for!

Gram and Gramp thrived well before "Generation Text", the latter of which in my experience is none too good with either prepositions or capitalization. For some examples just this past semester, I personally sense that there is a noticeable difference between getting a melted candle stuck *on* my ass as opposed to *up* my ass. Then there is, "We helped our Uncle Jack off his horse"; reduce the capitals to lower case and I detect a significant communications lapse. Your spell/grammar checker will not catch these, because that two pounds of copper and plastic has no more brains than a bowling ball. Smarts is *your* job!

The excerpts below are from Richard Lederer's More Anguished English (Delacorte Publishing, 1992). Lederer's idea was to synthesize a "new" world history from students' essay exam bloopers. These gems are real. For all of you aspiring writers, here is a sample of how *NOT* to do it. Guaranteed to offend most audiences, and also make you look the fool. **PROOFREAD YOUR WORK!!!**

"Ancient Egypt was inhabited by mummies and they all wrote in hydraulics. They lived in the Sarah Dessert and traveled by Camelot. The climate of the Sarah is such that the inhabitants have to live elsewhere, so certain areas of the dessert are cultivated by irritation. Early Egyptian women wore a garment called a calasiris. It was a sheer dress which started beneath the breasts which hung to the floor. The Egyptians built the Pyramids in the shape of a huge triangular cube. The Pyramids are a range of mountains between France and Spain.

"The Bible is full of interesting caricatures. In the first book of the Bible, Guinnesses, Adam and Eve were created from an apple tree. One of their children, Cain, asked "Am I my brother's son?" Jacob, son of Isaac, stole his brother's birthmark. Jacob was a patriarch who brought up his twelve sons to be patriarchs, but they did not take to it. One of Jacob's sons, Joseph, gave refuse to the Israelites.

"Pharaoh forced the Hebrew slaves to make bread without straw. Moses led them to the Red Sea, where they made unleavened bread, which is bread made without any ingredients. Afterwards, Moses went up on Mount Cyanide to get the Ten Commandments. David was a Hebrew king skilled at playing the liar. He fought the Philatelists, a race of people who lived in Biblical times. Solomon, one of David's sons, had 500 wives and 500 porcupines.

- "The Greeks were a highly sculptured people and without them we wouldn't have history. The Greeks also had myths. A myth is a female moth. One myth says the mother of Achilles dipped him in the River Styx until he became intolerable. Achilles also appears in 'The Iliad' by Homer who also wrote 'The Odyssey', in which Penelope was the last hardship Ulysses endured on his journey. Actually, Homer was not written by Homer but by another man of that name.
- "Socrates was a famous Greek teacher who went around giving people advice so they killed him. Socrates died of an overdose of wedlock and after his death his career suffered a dramatic decline.
- "In the Olympic Games, Greeks ran races, jumped, hurled the biscuits, and threw the javs. A coral garland was the prize.
- "The government of Athens was democratic because the people took the law into their own hands. There were no wars in Greece, because the mountains were so high that they couldn't climb over to see what their neighbors were doing. When they fought the Persians, the Greeks were outnumbered because the Persians had more men.
- "Eventually, the Romans conquered the Greeks. History called these people Romans because they never stayed in one place for very long. Julius Caesar extinguished himself on the battlefields of Gaul. The Ides of March killed him because they thought he was going to be made king. Nero was a cruel tyrant who would torture his poor subjects by playing the fiddle to them.
- "Later came the Middle Ages, when everyone was middle-aged. King Alfred conquered the Danes, King Arthur lived in the Age of Shivering, King Harold mustered his troops before the Battle of Hastings and Joan of Arc was burnt to a steak and was canonized by Bernard Shaw. Victims of the blue-bonnet plague grew boobs on their necks and the Magna Carta provided that no free man should be hanged twice for the same offense.
- "In medieval times most people were illiterate. The greatest writer of the medieval ages was Chaucer, who wrote many poems and verses and also wrote literature. Another story was about William Tell who shot an arrow through an apple while standing on his son's head.
- "The Renaissance was an age when more individuals felt the value of their human being. Life reeked with joy. Martin Luther was nailed to the church door at Wittenberg for selling papal indulgences. He died a horrible death being excommunicated by a bull. It was the painter Donatello's interest in the female nude that made him the father of the Renaissance.
- "The greatest writer of the Renaissance was William Shakespeare; he was born in the year 1564 supposedly on his birthday. He never made much money and is famous only because of his plays. He lived in Windsor with his merry wives, and wrote tragedies, comedies, errors, and hysterectomies, all in iambic pentameter. In one play, Hamlet rations out his situation by relieving himself in a long soliloquy. Romeo and Juliet are an example of a heroic couplet. Writing at the same time was Miguel Cervantes, who wrote "Donkey Hote". John Milton wrote "Paradise Lost"; then his wife died and he wrote "Paradise Regained".
- "The government of England was a limited monarchy. Henry VIII found walking hard because he had an abscess on his knee. Queen Elizabeth was the "Virgin Queen"; as a queen she was a success. When she exposed herself before her troops, they all shouted "hurrah"; then the navy went out and defeated the Spanish Armada. Sir Francis Drake circumnavigated the world with a 100-foot clipper.
- "During the Renaissance America began. Columbus was a great navigator who discovered America while cursing about the Atlantic. Later the Pilgrims crossed the ocean, and this was called the Pilgrim's Progress. Many people died, which proved very fatal to them, and many babies were born. Captain John Smith was responsible for all this.
- "The Enlightenment was a reasonable time. It was an age of great inventions. Gutenberg invented removable type and the Bible. Volta invented electricity and wrote "Candy". Sir Isaac Newton invented gravity; it is chiefly noticeable in Autumn, when apples are falling. Another important invention was the circulation of the blood.
- "Bach was the most famous composer in the world, and so was Handel. Bach died from 1750 to the present. Handel was half German, half Italian, and half English. Beethoven wrote music even though he was deaf; he was so deaf he wrote loud music. He took long walks in the woods even when everyone was calling for him. Beethoven expired in 1827, and later died for this.
- "One cause for the Revolutionary War was the English put tacks in their tea. Also, the colonists would put parcels through the post without stamps. Finally, the colonists won the war and no longer had to pay for taxes. Delegates from the original thirteen states formed the Continental Congress. Then the Constitution was adopted to secure domestic hostility, and the people enjoyed the right to keep bare arms. Thomas Jefferson, a Virgin, and Benjamin Franklin were two signers of the Declaration of Independence. Franklin invented electricity by rubbing cats backwards, and declared "a horse divided against itself cannot stand." Franklin died in 1790, and is still dead.
- "In the 19th Century people stopped reproducing by hand and started reproducing by machine. The invention of the steamboat caused a network of rivers to spring up. Cyrus McCormick invented the McCormick reaper which did the work of a hundred men. Samuel Morse invented a code for telegraphy. Charles Darwin wrote the "Origin of the Species". Louis Pasteur invented a cure for rabies. Madman Curie discovered radio, and Karl Marx became one of the Marx brothers.
- "The sun never set on the British Empire because the British Empire is in the east and the sun sets in the west. Abraham Lincoln became America's greatest Precedent and was born in a log cabin he built with his own hands. He wrote the Gettysburg Address while traveling from Washington to Gettysburg on the back of an envelope. He also freed the ex-Negroes by signing the Emancipation Proclamation. Then the First World War, caused by the assassination of the Arch-Duck by a surf, ushered in a new error in the annals of human history.

**Cross me not. I'll figuratively slide you down a thirty-foot razor blade into a pool of rubbing alcohol. Please do not make us appear stupid. You deserve better.**



**These are from a book called 'Disorder in the American Courts' and are things people actually said in court, word for word, taken down and now published by court reporters that had the torment of staying calm while these exchanges were actually taking place.**

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**ATTORNEY: This myasthenia gravis, does it affect your memory at all?**

**WITNESS: Yes.**

**ATTORNEY: And in what ways does it affect your memory?**

**WITNESS: I forget.**

**ATTORNEY: You forget? Can you give us an example of something you forgot?**

---

**ATTORNEY: Now doctor, isn't it true that when a person dies in his sleep, he doesn't know about it until the next morning?**

**WITNESS: Did you actually pass the bar exam?**

---

**ATTORNEY: The youngest son, the twenty-year-old, how old is he?**

**WITNESS: He's twenty, much like your IQ.**

---

**ATTORNEY: Were you present when your picture was taken?**

**WITNESS: Are you shitting me?**

---

**ATTORNEY: She had three children, right?**

**WITNESS: Yes.**

**ATTORNEY: How many were boys?**

**WITNESS: None.**

**ATTORNEY: Were there any girls?**

**WITNESS : Your Honor, I think I need a different attorney. Can I get a new attorney?**

---

**ATTORNEY: How was your first marriage terminated?**

**WITNESS: By death.**

**ATTORNEY: And by whose death was it terminated?**

**WITNESS: Take a guess.**

---

**ATTORNEY: Can you describe the individual?**

**WITNESS: He was about medium height and had a beard.**

**ATTORNEY: Was this a male or a female?**

**WITNESS: Unless the Circus was in town I'm going with male.**

---

**ATTORNEY: Is your appearance here this morning pursuant to a deposition notice which I sent to your attorney?**

**WITNESS: No, this is how I dress when I go to work.**

---

**ATTORNEY: Doctor, how many of your autopsies have you performed on dead people?**

**WITNESS: All of them. The live ones put up too much of a fight.**

---

**ATTORNEY: ALL your responses MUST be oral, OK? What school did you go to?**

**WITNESS: Oral.**

---

**ATTORNEY:** Do you recall the time that you examined the body?

**WITNESS:** The autopsy started around 8:30 p.m.

**ATTORNEY:** And Mr. Denton was dead at the time?

**WITNESS:** If not, he was by the time I finished.

---

**ATTORNEY:** Are you qualified to give a urine sample?

**WITNESS:** Are you qualified to ask that question?

---

**ATTORNEY:** Doctor, before you performed the autopsy, did you check for a pulse?

**WITNESS:** No.

**ATTORNEY:** Did you check for blood pressure?

**WITNESS:** No.

**ATTORNEY:** Did you check for breathing?

**WITNESS:** No.

**ATTORNEY:** So, then it is possible that the patient was alive when you began the autopsy?

**WITNESS:** No.

**ATTORNEY:** How can you be so sure, Doctor?

**WITNESS:** Because his brain was sitting on my desk in a jar.

**ATTORNEY:** I see, but could the patient have still been alive, nevertheless?

**WITNESS:** Yes, it is possible that he could have been alive and practicing law..

Scientists and government officials are not alone in sometimes obtuse communication. The gems above are from wordsmiths of the legal profession. Sometimes I think that the only difference between a truckload of lawyers and a truckload of bowling balls is that you'll probably bend your pitchfork on the bowling balls...

[www.amazon.com/Disorder-American-Courts-Quotes-Proceedings/dp/069227457X/ref=sr\\_1\\_2?s=books&ie=UTF8&qid=1410834442&sr=1-2&keywords=disorder+in+american+courts](http://www.amazon.com/Disorder-American-Courts-Quotes-Proceedings/dp/069227457X/ref=sr_1_2?s=books&ie=UTF8&qid=1410834442&sr=1-2&keywords=disorder+in+american+courts)

Guess who, and by what profession, are two of the richest people in America? <http://www3.forbes.com/lists/the-richest-person-in-americas-50-largest-cities/22/> and <http://www3.forbes.com/lists/the-richest-person-in-americas-50-largest-cities/42/>. Of course, success obviously comes best with either pants or pampers endorsements!

**Forbes**



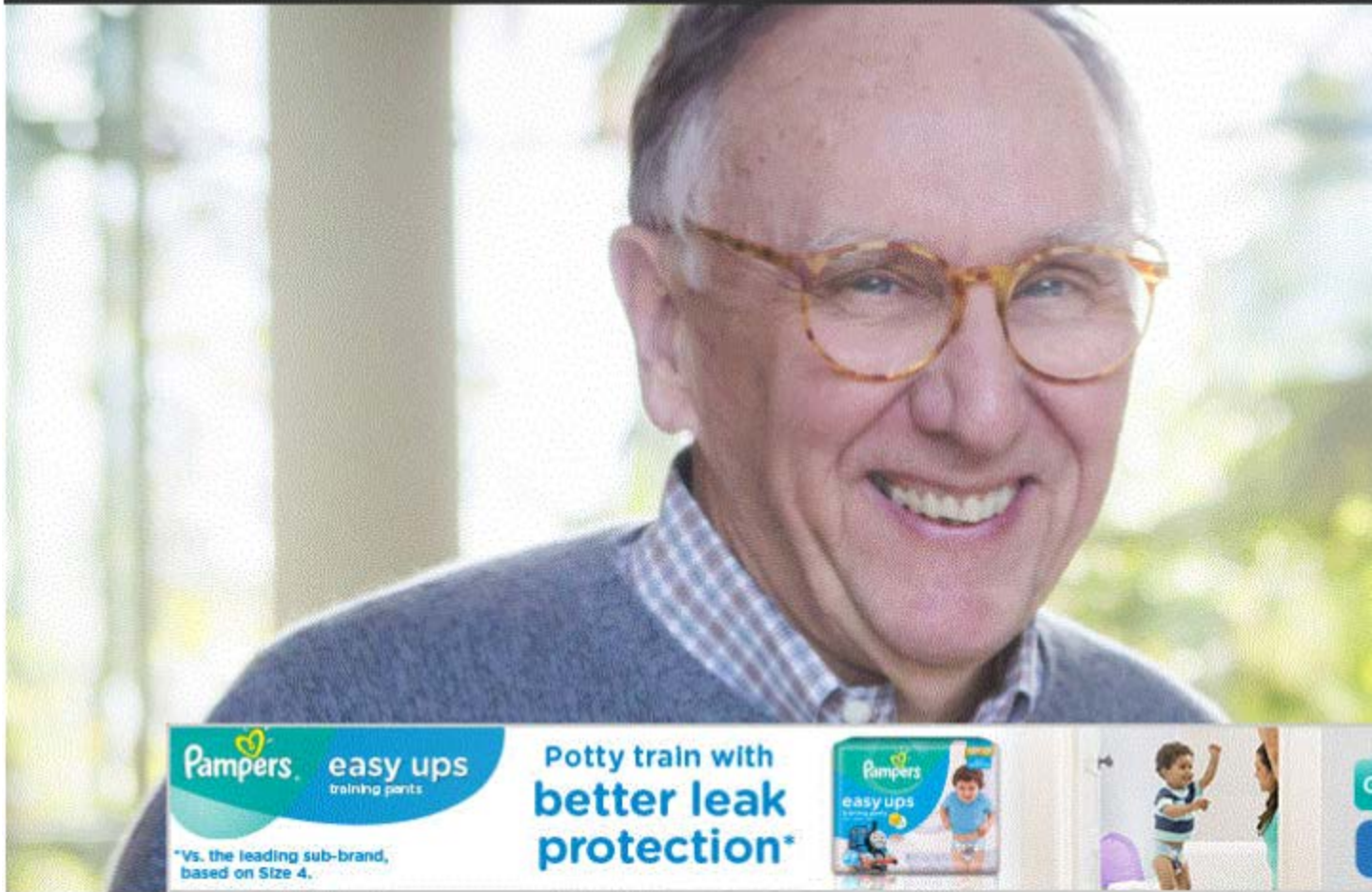
## **Kansas City, MO**

Name: Min Kao

Net Worth: \$2.1 B

Origin of Wealth: Navigation Equipment

**Forbes**



**Riverside, CA**

Name: Jack Dangermond

Net Worth: \$3.1 B

Origin of Wealth: Mapping Software

One last insight; I am of a different geographic origin and era than you.

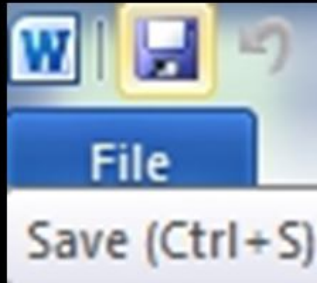
## Retirement Eligibility Screening Question #6:

If you know what the item below is...



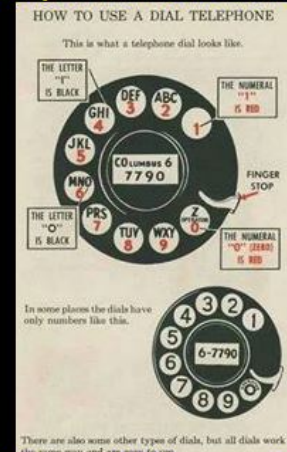
You probably are able to retire NOW.

If you know what the item top-center below depicts...



You might be able to retire MAYBE IN FIFTEEN YEARS.

If you ever received the Bell Telephone notice below...



You probably are quite successfully retired already.

**And if you answered all three of these questions correctly, you are an inter-generational refugee who ought not further baffle the contemporary managers of your Social Security Administration.**

Reality can be so complex that equally valid observations from differing perspectives can appear to be contradictory.

