SCIENTIFIC REASONING RUBRIC CHEAT SHEET

Complete first page and return to Martie Kaczmarek, OIRA at mkaczmarek@ccsu.edu

Faculty Name: _____ **Department:** _____

Course Name & Number: _____ **Academic Year:** _____

Number of Artifacts Submitted: _____ **Date Submitted:** _____

Scientific Reasoning (Inquiry and Analysis): Does your assignment explicitly address each of the categories below? The categories listed below will be used to score student artifacts/assignments. Please confirm that your assignment instructions address each category.

Category	Description	Yes	No	Partially
1. RESEARCH QUESTION(S)	Identifies a creative, focused, and manageable research questions that addresses potentially significant yet previously less-explored aspects of the topic.			
2. LITERATURE REVIEW (Existing Knowledge, Research, and/or Views)	Synthesizes in-depth information from relevant sources representing various points of view/approaches.			
3. METHODOLOGY (Design Process)	All elements of the methodology or theoretical framework are skillfully developed.			
	Appropriate methodology may be synthesized from across disciplines or from relevant subdisciplines.			
4. DATA OR FINDINGS (Analysis)	Organizes and synthesizes data to reveal insightful patterns, differences, or similarities related to focus.			
5. CONCLUSIONS	States a conclusion that is a logical extrapolation from the data.			
6. LIMITATIONS AND IMPLICATIONS	Insightfully discusses in detail relevant and supported limitations and implications.			

Supporting Information:

Definition - Inquiry is a systematic process of exploring issues/ objects/ works through the collection and analysis of evidence that result in informed conclusions/ judgments. Analysis is the process of breaking complex topics or issues into parts to gain a better understanding of them.

	Capstone - 4	**3**	**Milestones** **2**	**Benchmark -** 1
RESEARCH QUESTION(S)	Identifies a creative, focused, and manageable research question(s)that addresses potentially significant yet previously less-explored aspects of the topic.	Identifies a focused and manageable/doable research question(s) that appropriately addresses relevant aspects of the topic.	Identifies research question(s) that while manageable/doable, is too narrowly focused and leaves out relevant aspects of the topic.	Identifies a research question(s) that is far too general and wide-ranging as to be manageable and doable.
LITERATURE REVIEW (Existing Knowledge, Research, and/or Views)	Synthesizes in-depth information from relevant sources representing various points of view/approaches.	Presents in-depth information from relevant sources representing various points of view/approaches.	Presents information from relevant sources representing limited points of view/approaches.	Presents information from irrelevant sources representing limited points of view/approaches.
METHODOLOGY (Design Process)	All elements of the methodology or theoretical framework are skillfully developed. Appropriate methodology may be synthesized from across disciplines or from relevant subdisciplines.	Critical elements of the methodology are appropriately developed, however, more subtle elements are ignored or unaccounted for.	Critical elements of the methodology are missing, incorrectly developed, or unfocused.	Methodology is entirely inappropriate to answer the research question.
DATA OR FINDINGS (Analysis)	Organizes and synthesizes data to reveal insightful patterns, differences, or similarities related to focus.	Organizes data to reveal important patterns, differences, or similarities related to focus.	Organizes data, but the organization is not effective in revealing important patterns, differences, or similarities.	Lists data, but it is not organized and/or is unrelated to focus.
CONCLUSIONS	States a conclusion that is a logical extrapolation from the data.	States a conclusion focused solely on the data. The conclusion arises specifically from and responds specifically to the data.	States a general conclusion that, because it is so general, also applies beyond the scope of the data.	States an ambiguous, illogical, or unsupportable conclusion from data.
LIMITATIONS AND IMPLICATIONS	Insightfully discusses in detail relevant and supported limitations and implications.	Discusses relevant and supported limitations and implications.	Presents relevant and supported limitations and implications.	Presents limitations and implications, but they are possibly irrelevant and unsupported.