

Goal Three

“Students graduating from West Chester University will be able to think critically and analytically.”

Learning Outcome	1	2	3	4
Effectively frame a research question, including differentiating among facts, opinions, and inferences by assessing and evaluating sources.	Student cannot frame research question, uses sources inappropriately.	Student frames an incorrect or ineffective research question (cannot be operationalized, inconsistent appropriate use of sources).	Student frames adequate research question (can be operationalized and incorporates appropriate sources).	Student frames insightful research question that can be operationalized and is framed within an appropriate research context).
Apply conceptual knowledge to: - identify assumptions - make logical inferences - identify defective logical inferences - reach reasonable conclusions	Student fails to recognize concept; engages material erroneously.	Student recognizes concept but is unable to apply it correctly or logically.	Student recognizes concept; applies it generally or simplistically.	Student recognizes concept and applies it thoroughly and consistently.
Apply procedural knowledge to: - unpack complex problems into constituent parts - identify reliable problem-solving methods - accurately apply problem-solving methods	Student fails to recognize nature of problem to be solved and/or procedure necessary to solve it.	Student recognizes necessary procedure but is unable to apply it correctly or logically.	Student recognizes procedure; applies it generally or simplistically.	Student recognizes procedure and applies it thoroughly and consistently.
Identify the presence of multiple perspectives and explain the contextual factors that account for these perspectives	Student is unable to identify perspectives other than own.	Student recognizes presence of multiple perspectives, but is unable to articulate them.	Student recognizes multiple perspectives; articulates them generally or simplistically.	Student recognizes multiple perspectives and articulates them clearly and specifically.

Note: The terms “conceptual knowledge” and “procedural knowledge” from Randall Knight’s text, “Five Easy Lessons.” In it Knight categorizes knowledge into three forms:

- Factual Knowledge – Knowledge of specific events and situations. Defining redshift (astronomy), listing checks and balances in government (political science), etc.

- Conceptual Knowledge – Knowledge of (physical) principles, knowledge that provides a unified understanding of many pieces of factual knowledge. Conceptual knowledge is generally thought of as having explanatory or predictive power. Reading supply/demand curves (economics), describing chemical reactions (chemistry), etc.

- Procedural Knowledge – Knowledge of how to apply factual and conceptual knowledge to specific problem-solving situations; knowing how to *use* what you know. Creating models, evaluating poll data, etc.