Section 1: Foundations of Science

Ways of Knowing: Learning Outcomes

1. Critical Thinking/Consumer Approach to Research
   1. Identify characteristics of critical thinkers
2. Sources of Knowledge
   1. Differentiate between methods of acquiring knowledge about the world (i.e., tenacity, intuition, superstition, authority, rational, and empirical).
   2. Describe the characteristics of the scientific method (e.g., empirical, self-correcting, testable, falsifiable).
   3. Differentiate between applied and basic research.
3. Bias in Research
   1. Identify types of biases (i.e., confirmation biases, hindsight biases, illusory correlations, and the fundamental attribution error).
   2. Explain why each type of bias is problematic.
   3. Identify when bias can occur in the research process.