

# Supplemental Material

*CBE—Life Sciences Education*

Clark and Hsu

**Supporting information for Clark and Hsu, “Insight from biology program learning outcomes: Implications for teaching, learning, and assessment”**

**Supplemental table 1.** Sample program learning objectives classified by their cognitive level.

<b>Program learning objective</b>	<b>Classification as higher-order cognitive (HOC) or lower-order cognitive (LOC) skill</b>
Identify, retrieve, and properly interpret and apply published and electronic sources of biological and other scientific information.	HOC
Be able to analyze and answer biologically relevant problems through the successful application of quantitative and analytical methods	HOC
Critically read the scientific literature in order to evaluate the scientific process.	HOC
Explain the importance of unifying concepts in biology, including cell theory, genetics, and evolution.	LOC
Recognize and understand ethical principles of fundamental and applied science and practice in society.	LOC
Graduates will demonstrate a level of biological content knowledge appropriate to their degree level.	LOC