

Table 1. Sample self-questions to promote student metacognition about learning^a

| Activity | Planning | Monitoring | Evaluating |
|----------------|--|--|---|
| Class session | <ul style="list-style-type: none">• What are the goals of the class session going to be?• What do I already know about this topic?• How could I best prepare for the class session?• Where should I sit and what should I be doing (or not doing) to best support my learning during class?• What questions do I already have about this topic that I want to find out more about? | <ul style="list-style-type: none">• What insights am I having as I experience this class session? What confusions?• What questions are arising for me during the class session? Am I writing them down somewhere?• Do I find this interesting? Why or why not? How could I make this material personally relevant?• Can I distinguish important information from details? If not, how will I figure this out? | <ul style="list-style-type: none">• What was today’s class session about?• What did I hear today that is in conflict with my prior understanding?• How did the ideas of today’s class session relate to previous class sessions?• What do I need to actively go and do now to get my questions answered and my confusions clarified?• What did I find most interesting about class today? |
| Overall course | <ul style="list-style-type: none">• Why is it important to learn the material in this course?• How does success in this course relate to my career goals?• How am I going to actively monitor my learning in this course?• What do I most want to learn in this course?• What do I want to be able to do by the end of this course? | <ul style="list-style-type: none">• In what ways is the teaching in this course supportive of my learning? How could I maximize this?• In what ways is the teaching in this course not supportive of my learning? How could I compensate for or change this?• How interested am I in this course? How confident am I in my learning? What could I do to increase my interest and confidence? | <ul style="list-style-type: none">• What will I still remember 5 yr from now that I learned in this course?• What advice would I give a friend about how to learn the most in this course?• If I were to teach this course, how would I change it?• What have I learned about how I learn in this course that I could use in my future biology/science courses? In my career? |

^aInspired by Ertmer and Newby (1996), Schraw (1998), and Coutinho (2007).