

# Supplemental Material

*CBE—Life Sciences Education*

Dye and Stanton

**Appendix 1**  
**Exam One Self-Evaluation**

Name: \_\_\_\_\_

ID Number: \_\_\_\_\_

**Self-Evaluation of Your CBIO3400 Exam One Performance**

*Please answer the following questions honestly and in as much detail as possible.*

**1) Have you seen your grade on exam one? Please circle one:**

YES, on my exam

YES, through eLC

NO, not yet

**2) How did you study for exam one? (Describe all of your approaches, techniques, and strategies.)**

**3A) Which study strategies (from your list above) worked well for you?**

Why did these study strategies work well for you?

**3B) Which study strategies (from your list above) did not work well for you?**

Why didn't these study strategies work well for you?

**PLEASE TURN OVER ↻**

**4)How effective was your study plan for exam one?**

Please explain your answer.

**5)What have you learned from exam one about what you need to be able to do in this course?**

**6) What are your learning goals for exam two? What would you like to be able to do?**

**7) What is your study plan for exam two? (Describe the approaches, techniques, and strategies you plan to use.)**

Which parts of your study plan are different than what you did for exam one?

**8) Earlier this semester, your instructors provided suggestions for studying from students who earned A grades in Cell Biology on eLC. After reading these suggestions, what new study strategy will you consider trying for exam two?**

Why do you think this strategy will work well for you?

**Appendix 2**  
**Exam Two Self-Evaluation**

Name: \_\_\_\_\_

ID Number: \_\_\_\_\_

**Self-Evaluation of Your CB3400 Exam Two Performance**

*Please answer the following questions honestly and in as much detail as possible.*

1) Did you put more time into studying for exam two than you did for exam one?

\_\_\_\_\_ yes

\_\_\_\_\_ no

2) Please describe the factors that influenced your ability **to put more time into studying for exam two.**

3) For the first Self-Evaluation assignment in CB3400 you made a study plan for exam two. Did you follow the study plan you outlined for exam two?

\_\_\_\_\_ yes

\_\_\_\_\_ no

4) Please describe the factors that influenced your ability to **follow your exam two study plan.**

5) What did you do **differently** to prepare for exam two compared to exam one?

How effective were these new strategies?

6) What are your learning goals for exam three? What would you like to be able to do?

**PLEASE TURN OVER ➡**

7) Now that you have taken two CB3400 exams, **which study strategies will you use for exam three, because they worked well for exams one and/or two?**

Why do you feel these study strategies are effective?

End of Exam Two Self-Evaluation

---

## Appendix 3 Semi-Structured Interview Protocol

### Introduction

"At the beginning of the semester you signed a consent form to participate in this study. In today's interview I will be asking questions about how you have approached learning in Cell Biology and in your past science courses in UGA and in high school. I will not share your answers with the faculty who are assigning your grades until after final grades are submitted. You have already been assigned a pseudonym, and your personal identifiers will be stripped from the data before analysis. Do you have any questions before we begin?"

### Questions

1. What is your major?
2. What biology courses have you taken at UGA?
3. Where did you go to high school? Tell me about your high school(location, size).
4. I'm interested in how your approaches to learning have changed over time. Starting with high school (and continuing until now) can you tell me about the study strategies you used to study for science courses?
  - a) What worked?
  - b) Did you try any strategies that didn't work?
  - c) How did you decide if a strategy worked/did not work?
5. When you think back, when did you make changes to your study strategies?
  - a) What prompted you to change?
  - b) What influenced your decision to make changes/not make changes?
6. Have your study strategies changed since the start of Cell Biology?
  - a) How have they changed?
  - b) Why did you/didn't you change your study habits?
  - c) How did you identify new study habits to try?
  - d) Are you aware of how your peers study for Cell Biology? How does that compare to what you do?

Card-sorting exercise (questions 7 and 8): *Write all major study strategies they reported using on their assignments on notecards before the interview.* "On these cards are all of the study strategies you mentioned on your self-evaluation assignments. If any are missing you can write them on these blank cards."

7. Can you rank your study strategy cards from most effective to least effective?
  - a) Tell me your thoughts behind the ranking.
  - b) In your view, what makes a strategy effective?
  - c) What is your goal while studying?

8. Are some of these strategies more suitable for one instructor or the other?
  - a) Are some of these strategies more suitable for Cell Biology than other science courses?
  
9. Since completing the self-evaluation assignments after the first two exams in Cell Biology, have you become more aware of your own learning/thinking/study strategies?
  - a) If you were already aware of these things, can you tell me about the process that you use to evaluate your learning/thinking/study strategies?
  - b) Is this something you use in all your course work, or does it differ based on the class?
  
10. What are your plans when you leave UGA?
  - a) Do you see yourself using any of the approaches we've talked about today/from CBIO 3400 in your future career?
  - b) If yes, how so?

*Note: We have omitted two questions asked toward the end of the interview because they were used for preliminary data collection for a different study.*