Case #1 Collaborating Outside of Lab

Scenario A

Joe, Sarah, and David work together as a lab group. Joe wants to go to medical school and is in several other demanding lab courses, while Sarah and David find that their other courses are relatively easy this semester. Joe is very focused during lab, contributing greatly to the actual execution of the experiments. He is generally good at multitasking and often finishes calculations for the group during the lab. For the last three weeks, however, Joe has failed to show up at the agreed-upon time to prepare for lab. This week, when Sarah and David invite him to meet with them to analyze the data from the last lab, he replies that since it is not his week to write a full report, he can make better use of this time to work on other courses. Sarah and David don't know what they should do.

- 1. What are the issues in this situation and why are they issues? Can you frame these issues in terms of the values that are in conflict?
- 2. Suggest and evaluate a few courses of action that Sarah and David could take. How realistic are these choices?

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Scenario B

Forget the Joe you met in Scenario A that did not have time to meet outside of lab. Now imagine that Joe (who still wants to go to medical school) is very focused both on preparing for labs and on analyzing that data afterwards. He feels this work out of the scheduled lab time has the most influence on his grade and he is intent on maintaining his 4.0 average. On the other hand, he feels that the actual work involved in performing a lab is irrelevant to his future and he spends most lab periods chatting with Nancy, who is in the group at the next bench, while Sarah and David perform the experimental work.

- 1. What are the issues in this situation and why are they issues? Can you frame these issues in terms of the values that are in conflict?
- 2. Suggest and evaluate a few courses of action that Sarah and David could take. How realistic are your choices?
- 3. Consider both Scenario A and Scenario B, what do you see as your responsibilities to each other as a lab group?

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Case #2 Collaborating During Lab

Scenario A

Zach plays the piano and has excellent control of his fine motor skills. John is a chemistry and computer science double major. Mark has worked in a research lab for the past two summers. At the beginning of the semester they decide that Mark will manage the group's lab work, Zach will do all of the actual chemistry, and John will operate all of the data collection devices. They are extremely efficient in lab, and often leave an hour or more before the lab period ends. The group, as a whole, agrees that this division of labor is fair.

- 1. What are the advantages and disadvantages (consequences) of the way this lab group functions?
- 2. What obligations do Zach, John, and Mark have as students in this course? To whom? Are they fulfilling these obligations with their current set up?

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Scenario B

The group from Scenario A continues to work together when, half-way through the semester John seems upset. When asked, he mutters something about not having the opportunity to practice any actual chemistry. He clearly no longer agrees that they should each have the same responsibilities every week. Furthermore, John feels it is Mark, in particular, who forced this decision on the group.

- 1. How is this situation different than the original situation? How is it the same?
- 2. What should each person do?
- 3. Consider both Scenario A and Scenario B, what do you see as your responsibilities to each other as a lab group?

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Case #3 Academic Honesty

Scenario A

Mary is undeniably brilliant. She excels in mathematics, economics, and even chemistry! She is in a lab group with Bill and Alex. The group earns a 59/60 on its first report, a truly remarkable grade; however, when Bill and Alex look over the graded report they notice something odd. Although their experimental results were in good agreement with the expected results, Bill and Alex recall that their data included several outliers. Upon further investigation Bill and Alex discover that Mary deleted the outliers from the report. Note, the professor is unaware of the missing data points.

- 1. What is the issue in this situation? What values are in conflict?
- 2. What should Bill and Alex do, and why (think! there are several answers)?

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- 2. What should Bill and Alex do, and why (think! there are several answers)?

Case #3 Academic Honesty

Scenario B

Bill and Alex also discover that Mary fabricated additional data points that improved the agreement between their experimental results and the expected results.

- 1. How does this new knowledge change the situation? Is the situation now better or worse, and why?
- 2. What course of action should Bill and Alex take, why? Consider all of the interested parties to whom they have responsibilities.
- 3. Consider both Scenario A and Scenario B, what do you see as your responsibilities to each other as a lab group?

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