

S1: Survey Questions

In what area is your intended major (or concentration) as of today? Select "Undecided" if you haven't chosen one yet.

- Natural Sciences (Biology, Chemistry, Physics, Earth/Space Science)
- Mathematics or Statistics
- Engineering or Materials Science
- Computer Science/Technology
- Social Sciences (e.g. Sociology, Political Science, Economics)
- Business
- Humanities (e.g. Philosophy, Culture, Literature)
- Undecided
- Other (please indicate)

At the present time, how confident are you that you will keep your intended major through college?

- Not at all confident; I am already planning to change my major. (1)
- Not very confident; it is highly likely that I will change my major. (2)
- There is about a 50% chance that I will change my major. (3)
- I'm fairly confident that I will keep my current choice as my major. (4)
- I'm very confident that I will keep my current choice as my major. (5)

Factor 1: Subject Interest:

What is your level of agreement with the following statements? (1= strongly disagree, 5= strongly agree)

- 1) I chose to take general biology because I'm really interested in the topic. / This semester I really enjoyed the biology material we covered in class.
- 2) I am really excited about taking this class. / I am excited about what we learnt in biology class this semester.
- 3) I am really looking forward to learning more about biology. / What we studied in biology class was useful for me to know.
- 4) I think the field of biology is an important discipline. / The things we studied in biology this semester are important to me.
- 5) I think that what we will study in general biology will be important for me to know. / What we learnt in biology this semester is important for my future goals.
- 6) I think that what we will study in general biology will be worthwhile for me to know. / What we learnt in biology this semester can be applied to real life.

Factor 2: Effort Belief:

What is your level of agreement with the following statements? (1= strongly disagree, 5= strongly agree)

- 1) To tell the truth, when I work hard at biology, it makes me feel like I'm not very smart. (reverse coded)
- 2) It doesn't matter how hard you work if you're not smart in biology, you won't do well in it. (reverse coded)
- 3) If you're not good at biology, working hard won't make you good at it. (reverse coded)
- 4) If biology is hard for someone, it means he or she probably won't be able to do really well at it. (reverse coded)
- 5) If you're not doing well at biology, it's better to try something easier. (reverse coded)
- 6) When biology is hard, it just makes me want to work more on it, not less.
- 7) If you don't work hard at biology and put in a lot of effort, you probably won't do well.
- 8) The harder you work at biology, the better you will be at it.
- 9) If a biology assignment is hard, it means I'll probably learn a lot doing it.

Factor 3: Intellectual Accessibility:

A list of opposing words appears below. Rate how well these words describe your feelings about Biology. Think carefully and **try not to include** your feelings toward Biology teachers or Biology courses. For each line, choose a position between the two words that describes **exactly how you feel**. The middle position (3) is if you are undecided or have no feelings related to the terms on that line.

Biology is:

- | | | |
|----------------|-----------|----------------------|
| 1) Complicated | 1 2 3 4 5 | Simple |
| 2) Confusing | 1 2 3 4 5 | Clear |
| 3) Easy | 1 2 3 4 5 | Hard (reverse coded) |
| 4) Challenging | 1 2 3 4 5 | Unchallenging |

Factor 4: Importance and Usefulness:

A list of opposing words appears below. Rate how well these words describe your feelings about Biology. Think carefully and **try not to include** your feelings toward Biology teachers or Biology courses. For each line, choose a position between the two words that describes **exactly how you feel**. The middle position (3) is if you are undecided or have no feelings related to the terms on that line.

Biology is:

- | | | |
|----------------|-----------|-------------------------|
| 1) Worthwhile | 1 2 3 4 5 | Useless (reverse coded) |
| 2) Worthless | 1 2 3 4 5 | Beneficial |
| 3) Good | 1 2 3 4 5 | Bad (reverse coded) |
| 4) Interesting | 1 2 3 4 5 | Dull (reverse coded) |
| 5) Exciting | 1 2 3 4 5 | Boring (reverse coded) |

Factor 5: Lab Confidence:

As you begin / finish Biology 173, how confident do you feel in your ability to execute the following Biology lab-based tasks? (1= not confident, 5= very confident)

- 1) Collect data during Biology lab
- 2) Use the equipment in the biology lab
- 3) Interpret data during lab sessions
- 4) Carry out experimental procedures in the Biology laboratory
- 5) Develop own hypothesis.
- 6) Present lab results to lab members.
- 7) Write an accurate full length lab report (Intro., Methods, Results, & Discussion).
- 8) How confident are you that you will be successful in this biology course?

Factor 6: Student Cohesiveness:

What is your expectation of what will happen / what happened in this lab class? (1= almost never, 5= very often)

- 1) Students get/got along well as a group.
- 2) Students are/were able to depend on each other for help.
- 3) Students get/got to know each other well.
- 4) Students work/worked cooperatively.
- 5) The teacher/instructor decides/decided the best way to proceed. (reverse coded)

Demographic questions (asked only on the pre-semester survey):

What is your gender?

- Male
- Female
- Prefer not to say
- Other descriptor (please indicate)

Are you a first generation college student?

Yes

No

Prefer not to say

What racial/ethnic group do you identify with? Select all that apply.

Asian

Black American

Black non-American (e.g. African, West Indian)

Latinx or Hispanic

Caucasian /white

MENA (Middle Eastern, North African)

Native American

Hawaiian or Pacific Islander

Other (please indicate)

Prefer not to say

What year are you in your studies?

Freshman (1)

Sophomore (2)

Junior (3)

Senior (4)

Other (e.g. post baccalaureate)