

BIOL 200 BB
Introductory Biology
Course type: Face-to-Face

Evaluation Delivery: Online
Evaluation Form: H
Responses: 15/17 (88% very high)

Taught by: Elizabeth Warfield, Lea Savolainen, Matthew George
Instructor Evaluated: Matthew George-Predoc TA

Overall Summative Rating represents the combined responses of students to the four global summative items and is presented to provide an overall index of the class's quality:

Combined Median	Adjusted Combined Median
4.4	4.4
(0=lowest; 5=highest)	

Challenge and Engagement Index (CEI) combines student responses to several *IASystem* items relating to how academically challenging students found the course to be and how engaged they were:

CEI: 4.8
(1=lowest; 7=highest)

SUMMATIVE ITEMS

	N	Excellent (5)	Very Good (4)	Good (3)	Fair (2)	Poor (1)	Very Poor (0)	Median	Adjusted Median
The lab section as a whole was:	15	53%	27%	7%	7%	7%		4.6	4.6
The content of the lab section was:	15	40%	40%	7%	13%			4.2	4.3
The lab instructor's contribution to the course was:	15	47%	27%	7%	13%	7%		4.4	4.4
The lab instructor's effectiveness in teaching the subject matter was:	15	47%	20%	13%	13%		7%	4.3	4.4

STUDENT ENGAGEMENT

Relative to other college courses you have taken:	N	Much Higher (7)	(6)	(5)	Average (4)	(3)	(2)	Much Lower (1)	Median
Do you expect your grade in this course to be:	15	13%	13%	27%	40%	7%			4.6
The intellectual challenge presented was:	15	20%	27%	20%	33%				5.3
The amount of effort you put into this course was:	15	33%	27%	7%	27%	7%			5.9
The amount of effort to succeed in this course was:	15	20%	20%	40%	20%				5.2
Your involvement in course (doing assignments, attending classes, etc.) was:	15	40%	13%	27%	20%				5.8

On average, how many hours per week have you spent on this course, including attending classes, doing readings, reviewing notes, writing papers and any other course related work?

Class median: 3.8 (N=15)

Under 2	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-19	20-21	22 or more
7%	40%	20%	7%		7%	7%	13%				

From the total average hours above, how many do you consider were valuable in advancing your education?

Class median: 3.4 (N=15)

Under 2	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-19	20-21	22 or more
7%	47%	20%	13%	7%			7%				

What grade do you expect in this course?

Class median: 3.0 (N=14)

A (3.9-4.0)	A- (3.5-3.8)	B+ (3.2-3.4)	B (2.9-3.1)	B- (2.5-2.8)	C+ (2.2-2.4)	C (1.9-2.1)	C- (1.5-1.8)	D+ (1.2-1.4)	D (0.9-1.1)	D- (0.7-0.8)	F (0.0)	Pass	Credit	No Credit
21%	14%	7%	14%	29%	7%	7%								

In regard to your academic program, is this course best described as:

(N=15)

In your major	A core/distribution requirement	An elective	In your minor	A program requirement	Other
73%	20%			7%	

STANDARD FORMATIVE ITEMS

	N	Excellent (5)	Very Good (4)	Good (3)	Fair (2)	Poor (1)	Very Poor (0)	Median	Relative Rank
Explanations by the lab instructor were:	15	53%	20%	13%	7%	7%		4.6	4
Lab instructor's preparedness for lab sessions was:	15	47%	33%	13%	7%			4.4	16
Quality of questions or problems raised by the lab instructor was:	15	47%	20%	20%	7%	7%		4.3	13
Lab instructor's enthusiasm was:	15	47%	33%	13%			7%	4.4	17
Student confidence in lab instructor's knowledge was:	15	60%	20%	7%	7%	7%		4.7	11
Lab instructor's ability to solve unexpected problems was:	15	67%		27%			7%	4.8	1
Answers to student questions were:	15	33%	33%	20%	7%		7%	4.0	18
Interest level of lab sessions was:	15	40%	33%	20%		7%		4.2	10
Communication and enforcement of safety procedures were:	15	60%	20%	7%	7%	7%		4.7	5
Lab instructor's ability to deal with student difficulties was:	15	53%	27%	7%	7%	7%		4.6	6
Availability of extra help when needed was:	15	53%	13%	20%	7%	7%		4.6	8
Use of lab section time was:	15	53%	7%	20%	13%	7%		4.6	2
Lab instructor's interest in whether students learned was:	15	47%	20%	13%	13%		7%	4.3	15
Amount you learned in the lab sections was:	15	53%	13%	20%	7%	7%		4.6	3
Relevance and usefulness of lab section content were:	15	53%	13%	20%	13%			4.6	7
Coordination between lectures and lab activities was:	15	47%	33%		13%	7%		4.4	9
Reasonableness of assigned work for lab section was:	15	47%	27%	7%	20%			4.4	12
Clarity of student responsibilities and requirements was:	15	47%	20%	7%	20%	7%		4.3	14

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STANDARD OPEN-ENDED QUESTIONS

Was this class intellectually stimulating? Did it stretch your thinking? Why or why not?

1. Yes, I felt that the lab was helpful, and was able to build confidence in lecture topics.
3. I loved lab! All the labs gave a visual connection to what was being learned in class.
4. I got to see a lot of new and cool things in lab. I enjoyed how hands-on some of the last labs were and how we actually got to dissect things.
5. Our labs were very fascinating this quarter and pushed our thinking, but still helped clarify topics. While lecture made some topics confusing, labs helped me make better connections between ideas.
6. Yes it was. Matt gave new information that required one to think outside the box in order to understand.
7. Yes it taught me a lot about the basics of biomolecules as well as how to think and study biology
8. Yes, I enjoyed lab. We did experiments in lab that were both really cool and were relevant to the rest of the class and to the exams.
9. Yes, it brought in a lot of practicals from lecture and applied them to real situations. I enjoyed how relevant some of the labs were to real life, and some of the struggle was helpful to really learn the material (especially with the glycolysis lab).
10. This class was intellectually stimulating and it did stretch my thinking, because the course content presented was much more difficult than previous courses I've taken, this class required a significant amount of learning/studying outside of the classroom/lab, and the labs tested students' ability to apply their knowledge of the material in multiple different scenarios and individually.
11. Yes
12. Fun quiz sections. Was good to explore concepts and see them in action

What aspects of this class contributed most to your learning?

1. The hands on learning, and real world visuals
2. Getting to actually do everything. Physically doing the experiments helps me learn
3. The labs corresponded well with lecture material. The diagrams on the board before lab were amazing in understanding content.
4. The worksheets in lab were sometimes hard, but they were also pretty helpful and challenged my thinking.
5. Matt gave clear and concise answers to questions we asked and never made topics more complex than they needed to be.
6. The hands on activities and explanations by Matt were what helped me learn the most.
7. lecture and polling
8. The lectures by Matt during lab, and the application worksheets afterwards.
9. Connection between lecture and lab was great, the labs seemed relevant to what we were learning most of the time. It was also just interesting to me, so I liked that it wasn't difficult to stay present in lab.
10. The notes/diagrams on the white boards contributed most to my learning, because it provided an outline for me to always use as a reference throughout the lab. The hands on, dissection labs also really contributed to my learning by providing me with a realistic model of what we were studying, instead of a colored diagram or microscope slide still from a textbook.
11. Dr. Wiggins and Matt
12. Explanation of concepts during lab

What aspects of this class detracted from your learning?

1. Certain aspects seemed out of place, and seemed to be there to waste time. Which was certain worksheet packets.
3. Sometimes, I was the first lab of the week, we had to rush to finish at the end of lab, not because labs were especially long, but just time management and figuring out the kinks of each lab (sharpie washing off of PCR tubes, turning paper as group work, etc.). I know this isn't really fixable, but rushing at the end of lab was sometimes stressful and did not help learning.
4. Some of the labs didn't have that much relation to what we were learning in class at that time, but it usually correlated pretty well.
6. Sometimes I didn't know what was going on so it was hard to understand.
7. nothing
8. Not much detracted from my learning.
9. The stinginess on the point-awarding was a little off putting. There were a few times where my group got docked points for not putting minor details in our lab drawings, and I didn't feel like the reason for getting points was to include a scale bar in a drawing. Maybe I'm bitter, but I just didn't think the point of the lab was to focus on things like that, so why make the points dependent on the small things?

10. Having to submit every lab worksheet individually despite working together with my lab group to get the answers, detracted from my learning because often times we were pressed for time during lab and every member writing down their answers on separate sheets of paper took up a significant portion of time that could've been used to complete the lab with more attentiveness and precision and make our answers more thoughtful and deep.

11. Nothing

12. So many drawings

What suggestions do you have for improving the class?

1. Maybe less busy work, but overall great labs

2. Lab was really helpful. Reviewing topics from lecture at the beginning of lab really helped and I feel like it helped manage our time well.

4. Coordinate lecture/lab times appropriately. However, I don't think there is much need for improvement.

6. Match up with the lecture.

7. potentially giving out practice problems after each lecture to cement understanding of the material

8. Nothing much. Maybe just consider other lab experiment options and see if experiments would work even better.

9. More lenient on lab grades (not so nit-picky).

10. Collect one set of worksheets from each lab group and engage the entire lab section at the beginning of lab by having each group present or expand on one topic related to the lab that week.

11. Nothing, Matt, you were an amazing TA, thank you so much for your help!

12. Less drawings, more questions

IASystem Course Summary Reports summarize student ratings of a particular course or combination of courses. They provide a rich perspective on student views by reporting responses in three ways: as frequency distributions, average ratings, and either comparative or adjusted ratings. Remember in interpreting results that it is important to keep in mind the number of students who evaluated the course relative to the total course enrollment as shown on the upper right-hand corner of the report.

Frequency distributions. The percentage of students who selected each response choice is displayed for each item. Percentages are based on the number of students who answered the respective item rather than the number of students who evaluated the course because individual item response is optional.

Median ratings. IASystem reports average ratings in the form of item medians. Although means are a more familiar type of average than medians, they are less accurate in summarizing student ratings. This is because ratings distributions tend to be strongly skewed. That is, most of the ratings are at the high end of the scale and trail off to the low end.

The median indicates the point on the rating scale at which half of the students selected higher ratings, and half selected lower. Medians are computed to one decimal place by interpolation.¹ In general, higher medians reflect more favorable ratings. To interpret median ratings, compare the value of each median to the respective response scale: *Very Poor, Poor, Fair, Good, Very Good, Excellent (0-5); Never/None/Much Lower, About Half/Average, Always/Great/Much Higher (1-7); Slight, Moderate, Considerable, Extensive (1-4)*.

Comparative ratings. IASystem provides a normative comparison for each item by reporting the decile rank of the item median. Decile ranks compare the median rating of a particular item to ratings of the same item over the previous two academic years in all classes at the institution and within the college, school, or division. Decile ranks are shown only for items with sufficient normative data.

Decile ranks range from 0 (lowest) to 9 (highest). For all items, higher medians yield higher decile ranks. The 0 decile rank indicates an item median in the lowest 10% of all scores. A decile rank of 1 indicates a median above the bottom 10% and below the top 80%. A decile rank of 9 indicates a median in the top 10% of all scores. Because average ratings tend to be high, a rating of "good" or "average" may have a low decile rank.

Adjusted ratings. Research has shown that student ratings may be somewhat influenced by factors such as class size, expected grade, and reason for enrollment. To correct for this, IASystem reports **adjusted medians** for summative items (items #1-4 and their combined global rating) based on regression analyses of ratings over the previous two academic years in all classes at the respective institution. If large classes at the institution tend to be rated lower than small classes, for example, the adjusted medians for large classes will be slightly higher than their unadjusted medians.

When adjusted ratings are displayed for summative items, **relative rank** is displayed for the more specific (formative) items. Rankings serve as a guide in directing instructional improvement efforts. The top ranked items (1, 2, 3, etc.) represent areas that are going well from a student perspective; whereas the bottom ranked items (18, 17, 16, etc.) represent areas in which the instructor may want to make changes. Relative ranks are computed by first standardizing each item (subtracting the overall institutional average from the item rating for the particular course, then dividing by the standard deviation of the ratings across all courses) and then ranking those standardized scores.

Challenge and Engagement Index (CEI). Several IASystem items ask students how academically challenging they found the course to be. IASystem calculates the average of these items and reports them as a single index. *The Challenge and Engagement Index (CEI)* correlates only modestly with the global rating (median of items 1-4).

Optional Items. Student responses to instructor-supplied items are summarized at the end of the evaluation report. Median responses should be interpreted in light of the specific item text and response scale used (response values 1-6 on paper evaluation forms).

¹ For the specific method, see, for example, Guilford, J.P. (1965). *Fundamental statistics in psychology and education*. New York: McGraw-Hill Book Company, pp. 49-53.