BIOS 11140 1 - Biotechnology for the 21st Century - Instructor(s): Navneet Bhasin

Project Title: **College Course Feedback - Winter 2024**

Number Enrolled: **37**
Number of Responses: **19**

Report Comments

Opinions expressed in these evaluations are those of students enrolled in the specific course and do not represent the University.

Creation Date: **Thursday, March 28, 2024**

The learning objectives of the course were clear and I understood how to achieve them.

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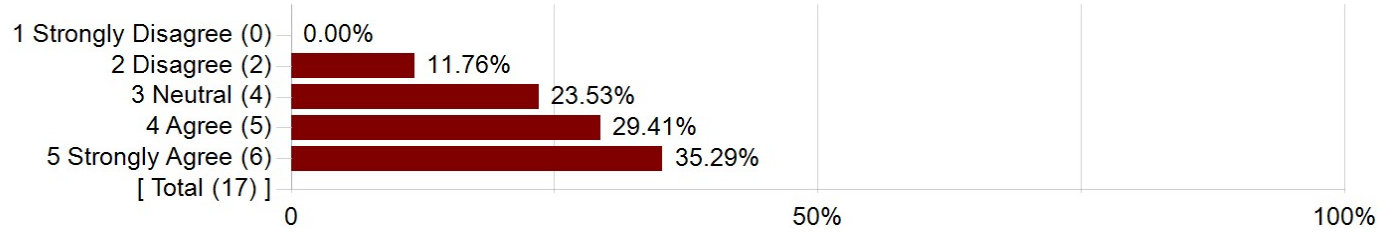

Statistics	Value
Response Count	17
Mean	3.88
Median	4.00
Standard Deviation	1.05

The course helped me to make important progress toward the stated objectives.

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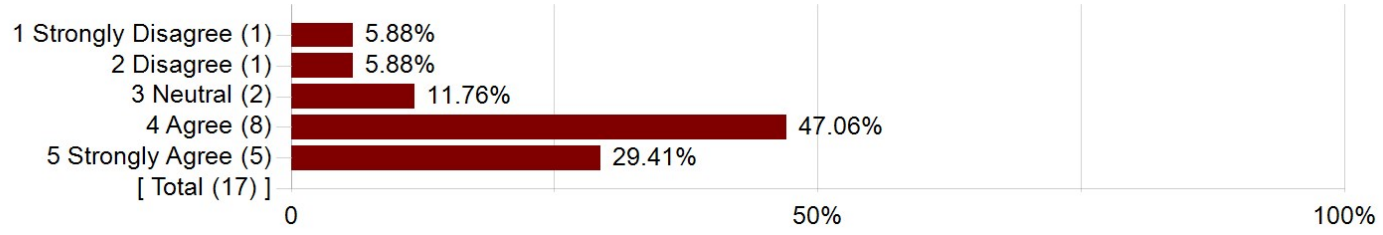

Statistics	Value
Response Count	17
Mean	3.88
Median	4.00
Standard Deviation	1.11

The graded elements of the course were directed toward assessing my progress toward the stated course objectives.

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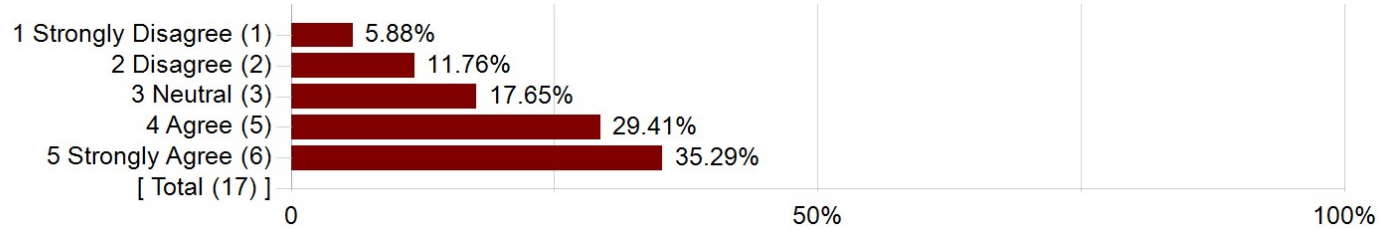

Statistics	Value
Response Count	17
Mean	3.76
Median	4.00
Standard Deviation	1.25

This course had more than one instructor and they connected well with each other.

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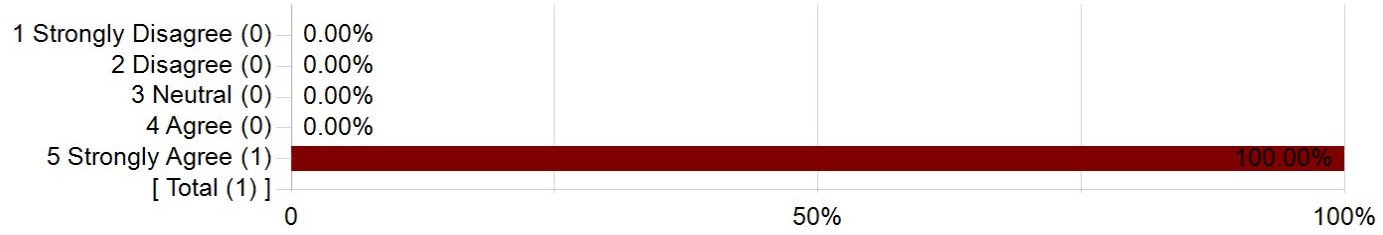
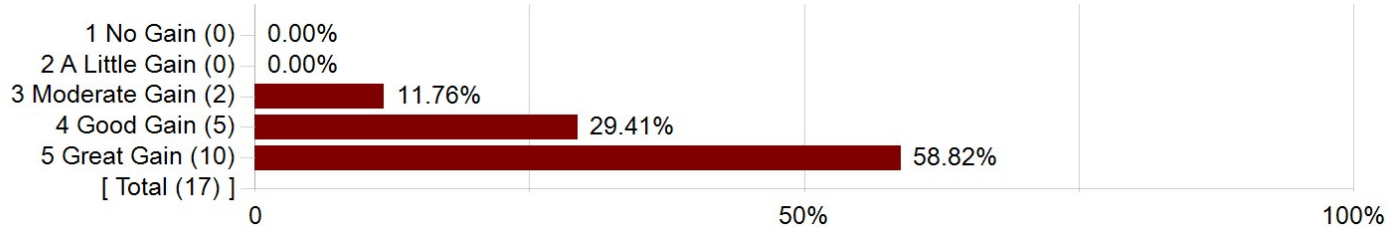


Statistics	Value
Response Count	1
Mean	5.00
Median	5.00
Standard Deviation	N/A

How much did the following elements of the course contribute to your learning gains?

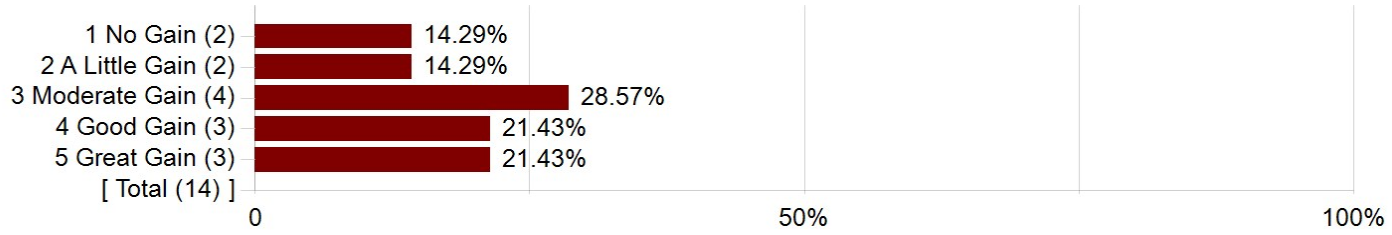
1. Classroom Lectures



Options	Score	Count	Percentage
No Gain	1	0	0.00%
A Little Gain	2	0	0.00%
Moderate Gain	3	2	11.76%
Good Gain	4	5	29.41%
Great Gain	5	10	58.82%

Statistics	Value
Response Count	17
Mean	4.47
Median	5.00
Standard Deviation	0.72

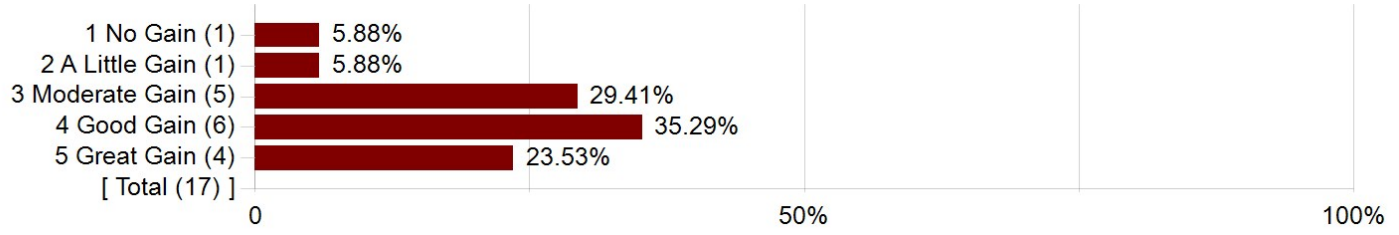
2. Classroom Discussions



Options	Score	Count	Percentage
No Gain	1	2	14.29%
A Little Gain	2	2	14.29%
Moderate Gain	3	4	28.57%
Good Gain	4	3	21.43%
Great Gain	5	3	21.43%

Statistics	Value
Response Count	14
Mean	3.21
Median	3.00
Standard Deviation	1.37

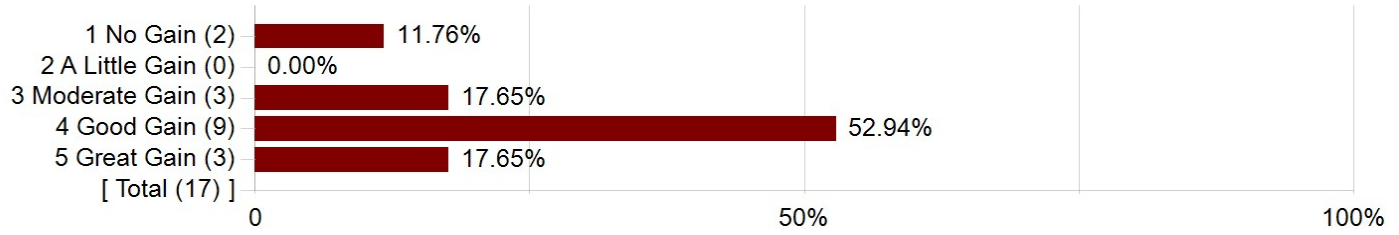
3. Assigned Readings



Options	Score	Count	Percentage
No Gain	1	1	5.88%
A Little Gain	2	1	5.88%
Moderate Gain	3	5	29.41%
Good Gain	4	6	35.29%
Great Gain	5	4	23.53%

Statistics	Value
Response Count	17
Mean	3.65
Median	4.00
Standard Deviation	1.11

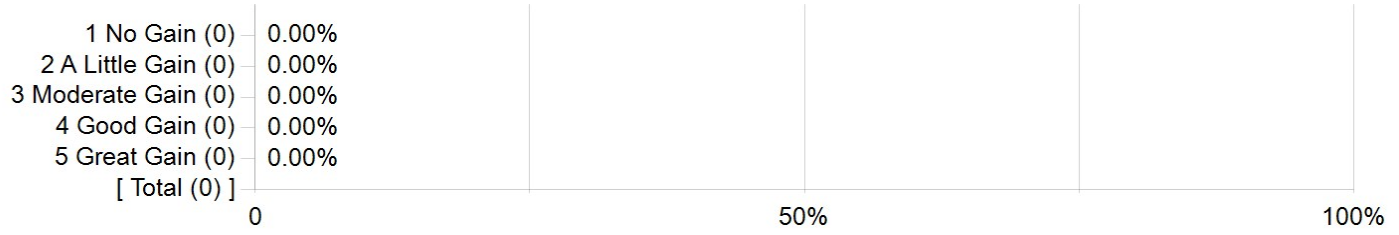
4. Homework Exercises



Options	Score	Count	Percentage
No Gain	1	2	11.76%
A Little Gain	2	0	0.00%
Moderate Gain	3	3	17.65%
Good Gain	4	9	52.94%
Great Gain	5	3	17.65%

Statistics	Value
Response Count	17
Mean	3.65
Median	4.00
Standard Deviation	1.17

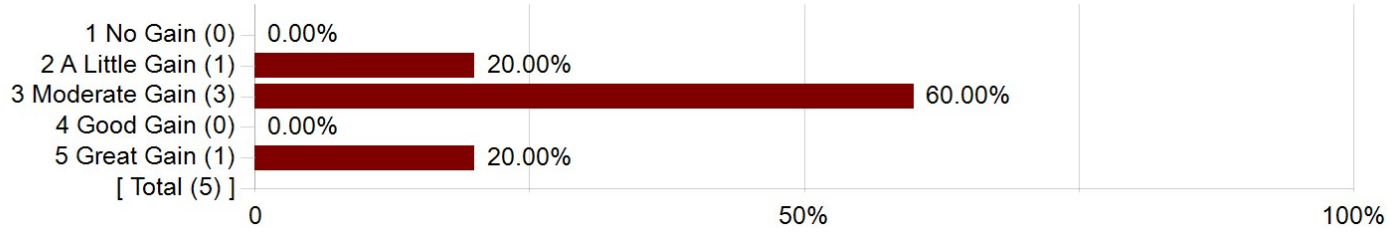
5. Lab Experiences



Options	Score	Count	Percentage
No Gain	1	0	0.00%
A Little Gain	2	0	0.00%
Moderate Gain	3	0	0.00%
Good Gain	4	0	0.00%
Great Gain	5	0	0.00%

Statistics	Value
Response Count	0
Mean	NRP
Median	NRP
Standard Deviation	NRP

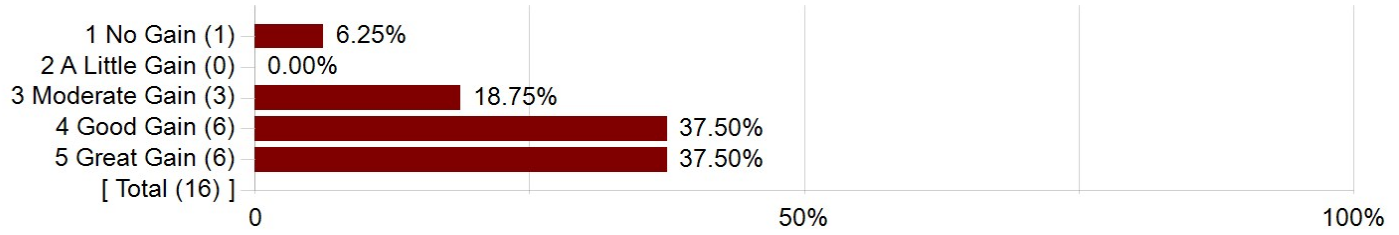
6. Discussion Sessions



Options	Score	Count	Percentage
No Gain	1	0	0.00%
A Little Gain	2	1	20.00%
Moderate Gain	3	3	60.00%
Good Gain	4	0	0.00%
Great Gain	5	1	20.00%

Statistics	Value
Response Count	5
Mean	3.20
Median	3.00
Standard Deviation	1.10

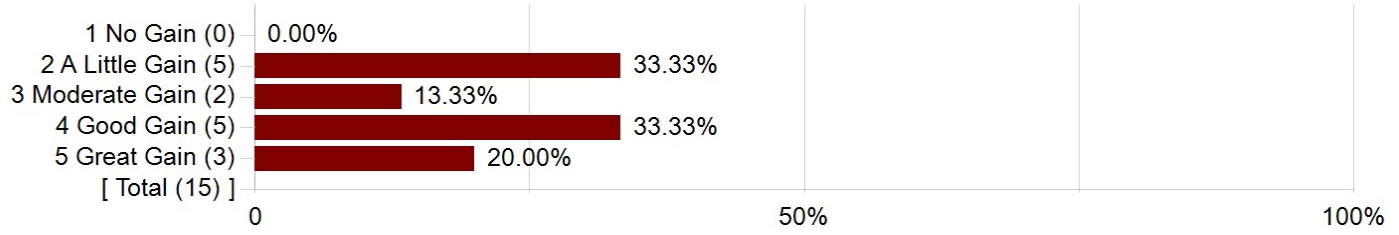
7. Review Sessions



Options	Score	Count	Percentage
No Gain	1	1	6.25%
A Little Gain	2	0	0.00%
Moderate Gain	3	3	18.75%
Good Gain	4	6	37.50%
Great Gain	5	6	37.50%

Statistics	Value
Response Count	16
Mean	4.00
Median	4.00
Standard Deviation	1.10

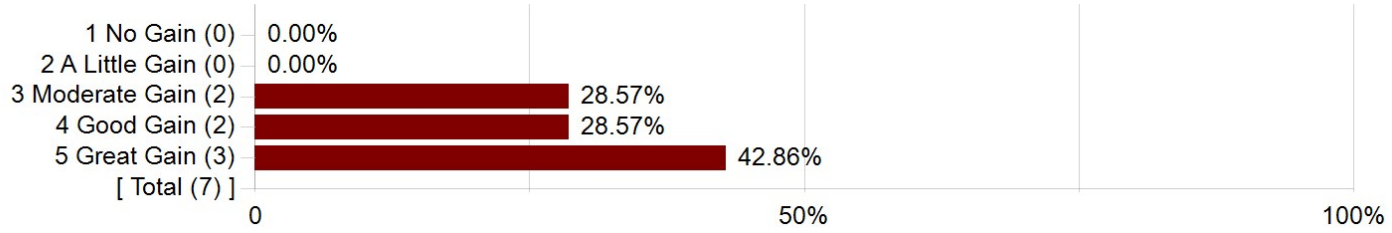
8. Interactions with Other Students



Options	Score	Count	Percentage
No Gain	1	0	0.00%
A Little Gain	2	5	33.33%
Moderate Gain	3	2	13.33%
Good Gain	4	5	33.33%
Great Gain	5	3	20.00%

Statistics	Value
Response Count	15
Mean	3.40
Median	4.00
Standard Deviation	1.18

9. Faculty Office Hours

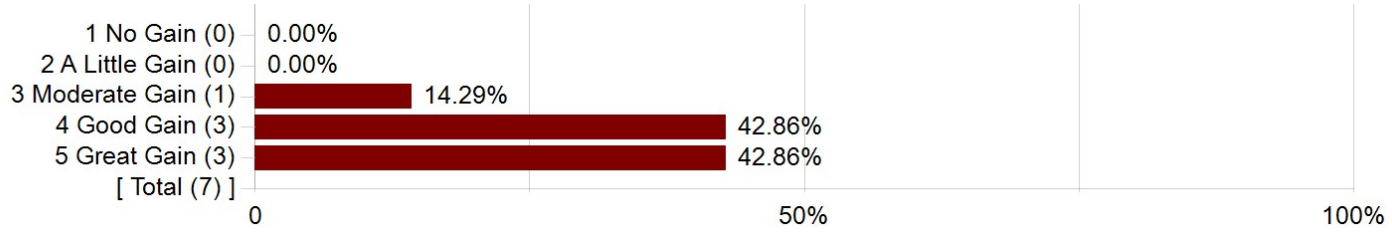


Options	Score	Count	Percentage
No Gain	1	0	0.00%
A Little Gain	2	0	0.00%
Moderate Gain	3	2	28.57%
Good Gain	4	2	28.57%
Great Gain	5	3	42.86%

Statistics	Value
Response Count	7
Mean	4.14
Median	4.00
Standard Deviation	0.90

How much did the following elements of the course contribute to your learning gains? (continued)

10. Teaching Assistant Office Hours



Options	Score	Count	Percentage
No Gain	1	0	0.00%
A Little Gain	2	0	0.00%
Moderate Gain	3	1	14.29%
Good Gain	4	3	42.86%
Great Gain	5	3	42.86%

Statistics	Value
Response Count	7
Mean	4.29
Median	4.00
Standard Deviation	0.76

What was the most important thing (to you) that you learned in this course? What aspect of the material is still unclear for you, that you wish you could have learned better?

Comments
Applications of biotechnology. All of the actual science behind the biotechnology is still unclear
I learned how many tools scientists have at their disposal to make advancements in the biotechnology field and I learned the basics of how they work. Just as importantly, I was able to learn, four times a week, about new advancements that were being made using these tools or similar concepts.
A background knowledge of DNA that led into modern applications of biotechnology; the review of the applications at the end is quite brief and very dependent on your interests
I learned so much about how DNA, RNA, protein synthesis works. These were vital concepts to learn because later you learn about plasmids, vaccines, GMOs which all hinge on those basic biology concepts. I wish I could have learned more about vaccines and antibiotics because those topics were kind of rushed at the end.
Discoveries and uses in Biotech such as gene–editing or GMOs. Forensics
Understanding DNA and RNA and basic biological processes is key to understanding this course. I do wish we spent a little longer on doing actual applications of biotech, rather than staying in such a theoretical/academic realm.
Recombinant DNA technology was the most important thing I feel that we learned in this course. Small thing but I wish we could have explored why we might insert plasmids in eukaryotic organisms as opposed to bacteria.
I was very interested in learning about phage therapy for my final project. Also, we covered cloning. I'm not sure what else I could have learned better.
I loved learning about Biotech and its rapidly–evolving advancements. I enjoyed learning about forensics and DNA fingerprinting, I thought that was very innovative. Overall, I think my learning expectations were satisfied.
We learned about the biological workings behind common biotechnologies such as cloning and genetic engineering. I wish we had talked more about how everything fits together.
The biological basis for various biotech applications.

How many hours per week outside of attending required sessions did you spend on this course?

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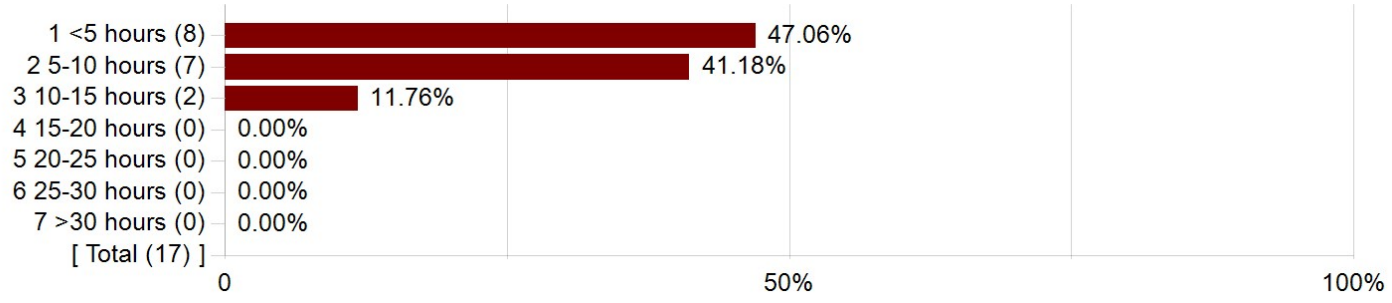
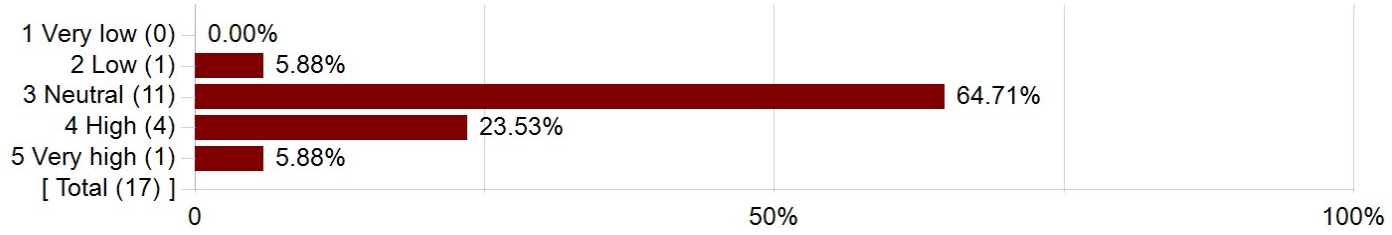


Statistics	Value
Response Count	17
Mean	1.65
Median	2.00
Standard Deviation	0.70

Prior to starting this class, your interest level was?

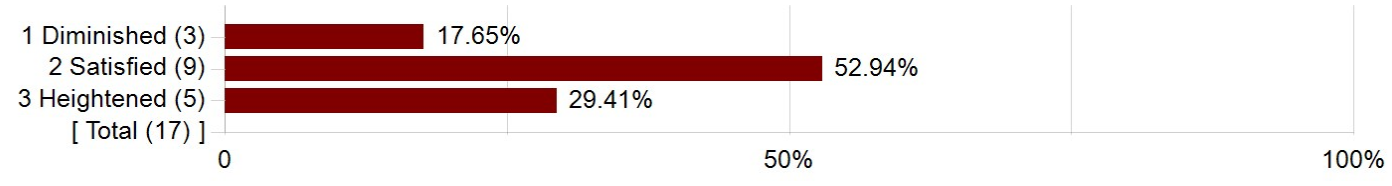
Prior to starting this class, your interest level was?



Statistics	Value
Response Count	17
Mean	3.29
Median	3.00
Standard Deviation	0.69

Now that this class is over, your interest is?

Now that this class is over, your interest is?



Statistics	Value
Response Count	17
Mean	2.12
Median	2.00
Standard Deviation	0.70

Overall, this was an excellent course.

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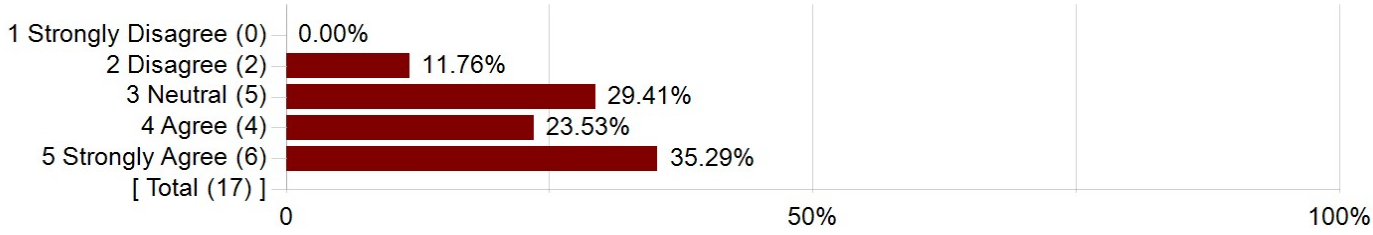

Statistics	Value
Response Count	17
Mean	3.82
Median	4.00
Standard Deviation	1.07

Please share any advice you have for students who are considering taking the course.

Comments
Professor Bhasin is exacting in her expectations of students and their comprehension of the material, but she is fair, and if one needs help, one should ask for it and communicate where they're having trouble. The first half or so of the course is review on DNA and its cellular/biological processes, and one must understand that in order to continue to do well in the class. The second half is focused on more technical topics using that baseline established in the first half. There are easier bio topics out there, but it's also decently interesting, and you will come away with a better understanding of biology and tech and its applications in our current lives.
Course is very doable, even with minimal bio experience. Exams are tough, need to know things said specifically in lectures, but a lot of different assignments to balance grade.
Be ready for lots of rote memorization of every single point on long slideshows in order to prepare for exams, while not actually understanding what you are memorizing. First half of the course was exclusively material already covered in principles of bio/inquiry–based bio/whatever course you took in the first half of the sequence
Listen to EVERYTHING said in the lectures. Even seemingly throwaway comments. Look at footnotes of the presentations.
Listen to what she says in class; doesn't matter if it's on the slides, that is what will be tested
You don't need a solid bio background to do well in this course. All you need is an interest in dedicating time to learning about biology processes. I found that even after lecture I had to do a lot of self study like watching videos about transcription, translation, PCR, CRISPR, how plasmids work. But if you find it interesting (which I really did!) then the self study won't feel like a chore. The homework assignments consist of reading either a research paper or an article and answering 5 questions on the content. This is also not hard just time consuming (usually 1–2 hours). Overall, I think this class was very much worth it. You learn core bio topics but also learn a lot of really cool biotech applications! I am an econ/STEM major and I really enjoyed this course you just have to be willing to put in extra time to it outside of class.
First half is very Bio heavy and the midterms are quite challenging
Midterms are hard, but only count for a small amount of your grade. Take notes in lecture as there is no textbook assigned, and do review sessions outside of class. Prof Bhasin is very helpful, if you are confused meet with her and she will make sure that you understand it.
This is a biotech class so don't expect to be doing little to no work. If you put in the work for the class, you will receive the great reward of understanding biotech applications and how they are currently impacting you.
Read the assigned materials, it isn't that much. My experience was that readings + written responses to questions took less than 2 hours. Put effort into coordinating with groupmates when working on projects, practice the presentation at least once beforehand – you don't want to run out of time.
Take this course if you're interested in Biotech, but expect to do a little more work than your peers in other bio topics classes. If you want to take advantage of your college years to actually learn and expand your general knowledge about the world, this course should be on your list.
The class isn't actually about biotech. It's mostly about DNA processes with occasional references to biotech.
Exams are very hard
Be prepared to take a lot of notes so that you are properly prepared for the exams. The midterms can be difficult if you don't have all the information presented at any point in class. Professor Bhasin does sometimes hint at what will be on the exams, though. Also, make sure to pay attention to the questions she and other students ask because they help your understanding and will be on the tests.