WASHINGTON STATE UNIVERSITY

2020 Spring Fall Quick Report for Zhiwu Zhang ANIM_SCI 545;BIOLOGY 545;CROP_SCI 545;HORT 545;PL_P 545

Project Title: College of Agricultural, Human, and Natural Resource Sciences Course Evaluations 2019-2020

Course Audience: **9**
Responses Received: **9**
Response Ratio: **100%**

Report Comments

This Quick Report for Instructors gives a summary of student responses in the course above for each question from the college's Course Evaluation in Blue. If a course has multiple sections, each section has a separate Quick Report. Student comments are provided at the end of the report or at the end of each question group on the report.

Instructor Quick Report for ANIM_SCI 545;BIOLOGY 545;CROP_SCI 545;HORT 545;PL_P 545.01-PULLM

If you have a question about your Instructor Quick Report please contact your college's course evaluation coordinator, **Alanna Ellis**, or email esg.blue@wsu.edu.

Table of Contents

Rating Scale Definitions

- 5: Always
- 4: Very Often
- 3: Sometimes
- 2: Rarely
- 1: Never
- [NA]

- 5: Strongly Agree
- 4: Mildly Agree
- 3: Neutral
- 2: Mildly Disagree
- 1: Strongly Disagree
- [NA]

Data: This report provides:

- Frequency distributions of student responses to individual questions
- Mean and median values
- Student comments at the end of each question group
- Overall response rate; and response counts for each question
- See Making Sense of Course Evaluations and Midterm Feedback from Students: A Quick Guide for Instructor

Notes

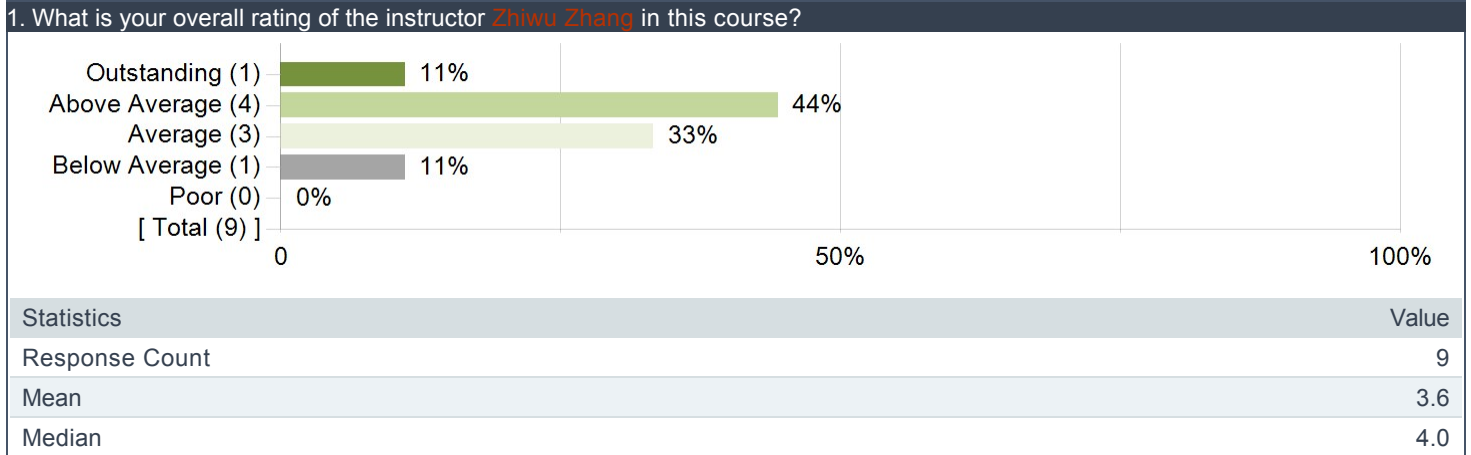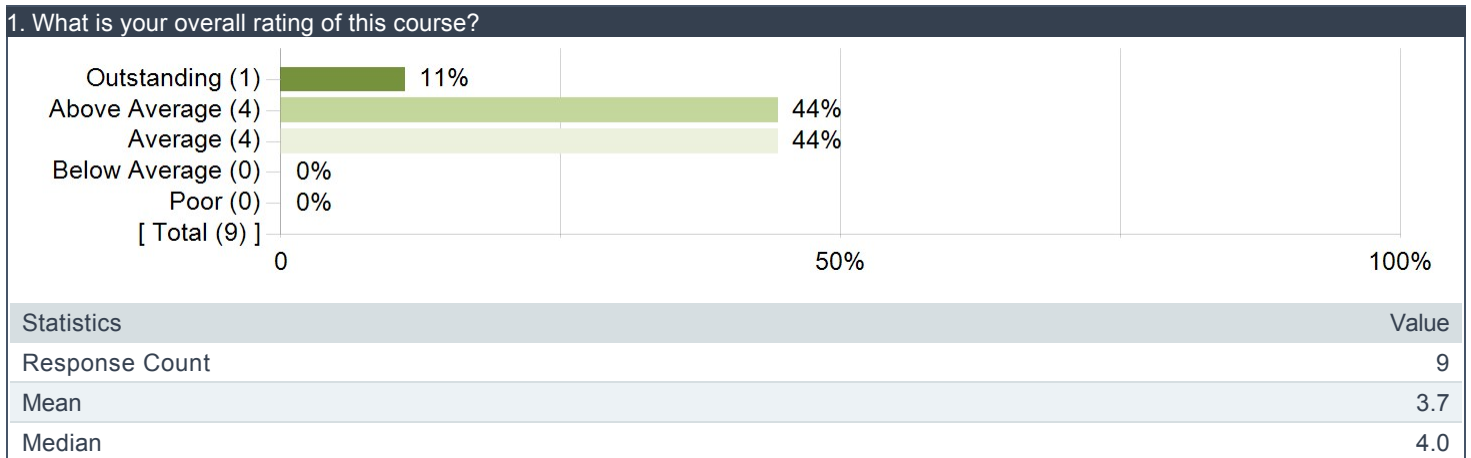|	
Does Not Apply/NA:	In questions with a "Does Not Apply" choice, the NA count is shown in the frequency graphs but is NOT included in any statistical analysis (mean/median).
Response thresholds to protect student confidentiality:	If fewer than five (5) students respond to your course evaluation, an Instructor Quick Report is not generated.
Multiple sections:	If a course has multiple sections, each section has a separate Instructor Quick Report.
Team-taught courses:	Each instructor receives results only for themselves as instructor and for all other questions about the course or non-instructor-specific topics.

Overall

What is your overall rating of the instructor Zhiwu Zhang in this course?

1. What is your overall rating of the instructor Zhiwu Zhang in this course?

Outstanding (1)	11%
Above Average (4)	44%
Average (3)	33%
Below Average (1)	11%
Poor (0)	0%
[Total (9)]	

Statistics	Value
Response Count	9
Mean	3.6
Median	4.0

What is your overall rating of this course?

1. What is your overall rating of this course?

Outstanding (1)	11%
Above Average (4)	44%
Average (4)	44%
Below Average (0)	0%
Poor (0)	0%
[Total (9)]	

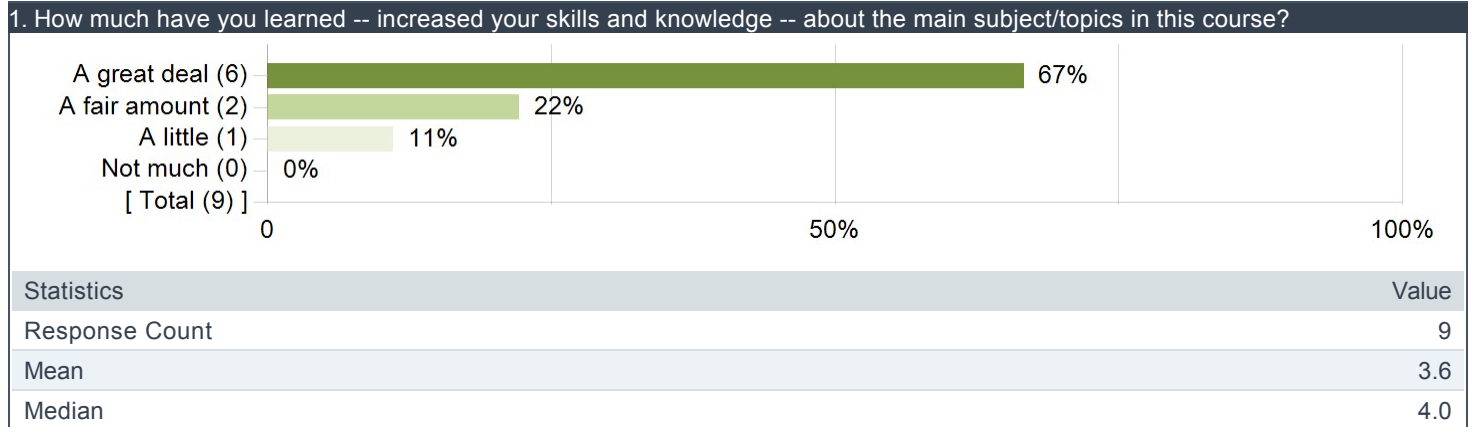| Statistics	Value
Response Count	9
Mean	3.7
Median	4.0

How strongly do you agree or disagree with each statement about this course?

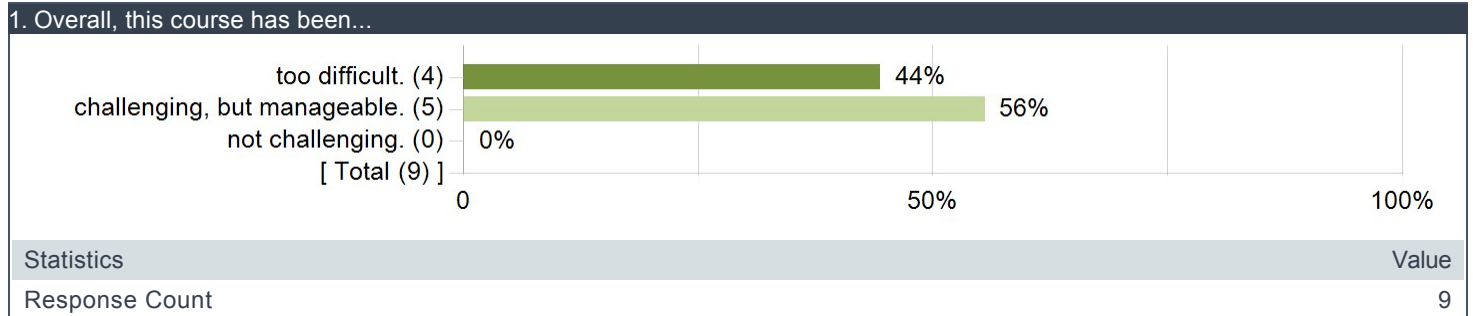The following elements of this course help me learn:
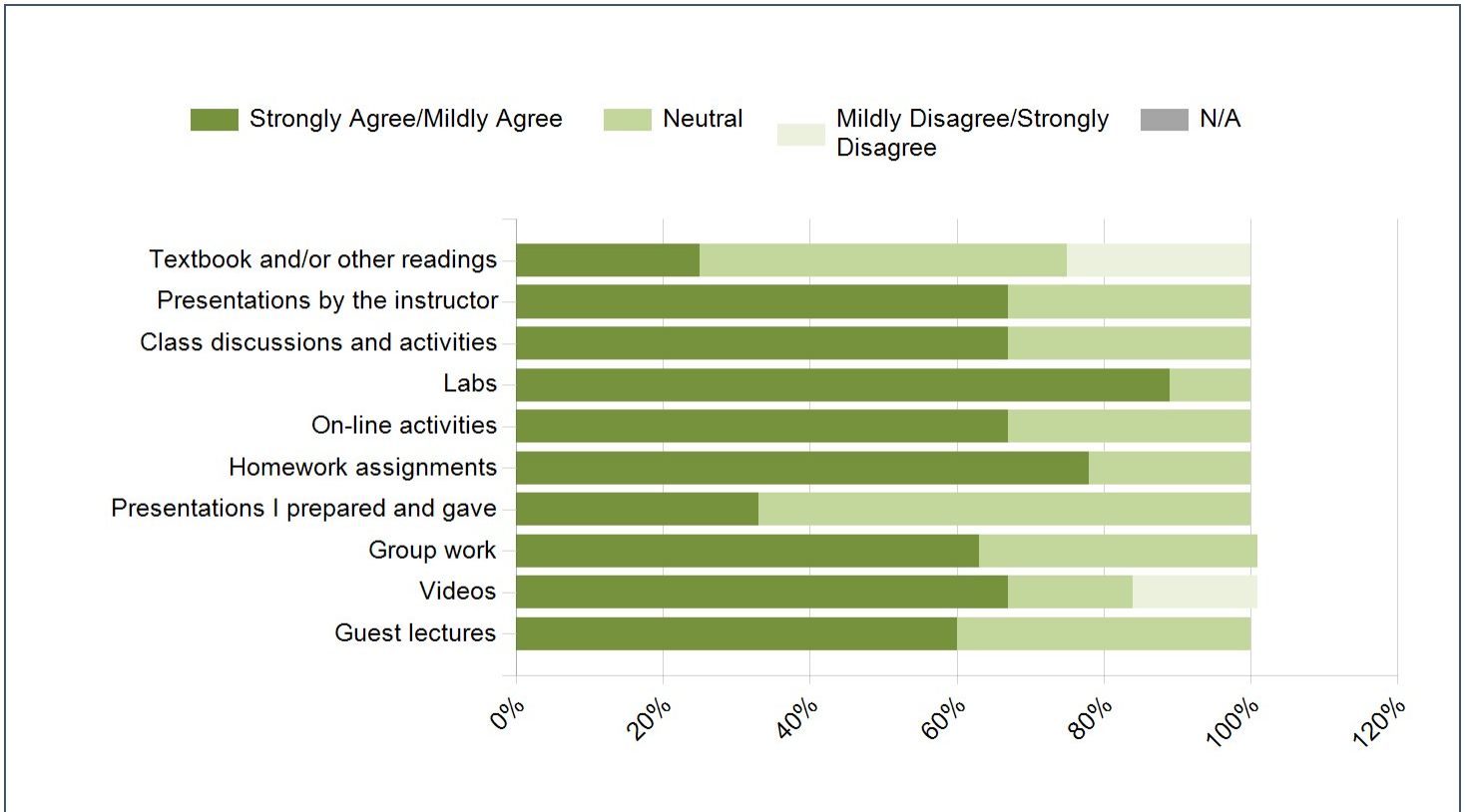
Overall Student Experience

How much have you learned -- increased your skills and knowledge -- about the main subject/topics in this course?

1. How much have you learned -- increased your skills and knowledge -- about the main subject/topics in this course?

A great deal (6)	67%
A fair amount (2)	22%
A little (1)	11%
Not much (0)	0%
[Total (9)]	

Statistics	Value
Response Count	9
Mean	3.6
Median	4.0

Overall, this course has been…

1. Overall, this course has been...

too difficult. (4)	44%
challenging, but manageable. (5)	56%
not challenging. (0)	0%
[Total (9)]	

Statistics	Value
Response Count	9

Please explain your choice above regarding how challenging this course has been.

Comments
It's very challenging especially in regards to the test that seems to not relate to lectures, homework, nor anything else in the class.
some question of homework is a little difficult to understand what it ask.
I would describe this course as being on the border of too difficult. Homework assignments took a substantial amount of time (~ 30 hours each), which I believe is unreasonable, given that they account for a relatively small percentage of the overall grade. However, I found that I learned most effectively when doing the homework assignments; therefore, I think homework assignments could be shortened slightly and account for a higher percentage of the overall grade. I came into this course with no prior experience in programming with any language, making the first several homework assignments extremely challenging. The course also presents some relatively advanced statistical methods (at least from my perspective), and I have only an introductory understanding of statistics (i.e., I took a statistics course in undergrad).
I did not have any R experience prior to the course. I think future students should be cautioned about taking the course without prior R experience.
The class description suggests some classes that you take prior to it, but has no real prerequisites. I had taken classes on statistics with minimal coding experience prior to this class and struggled a lot. I feel like I dedicated an extreme amount of time to the coding side and homework assignments took 2x as long as expected because of my lack of experience. It needs the prerequisites.
The amount of frustration to reward was poor. I felt that a majority of the time information could be presented in a more effective manner, and that the Homework needed to be re–written to be clear about what it required. Code presented in class was rarely commented, but we were expected to comment our code. Students were expected to maintain proper coding style, where as GAPIT and class source code was far from proper style. Graphs presented in lab often did not have axis labled, and were without title. Powerpoint slides did not have enough information contained in them to be used as an effective reference for later studying.
This course is one of the challenging course of the department. So I have to include myself for longer time every week to understand the course materials. I allocated more than 5 hours per week for this course
I've would spend many hours each week doing the homework... however the homework was really good at teaching me the material and helping me understand the concepts, so the time was worth it.

Overall, what suggestions or changes, if any, would you make to improve the content or format of this course regardless of who is teaching it?

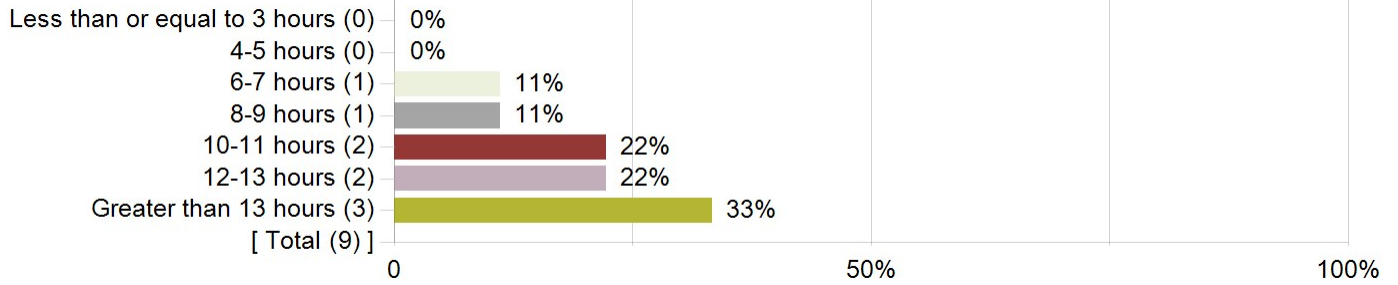| Comments |
| --- |
| The test need to be changed quite dramatically to represent what we're are actually learning. They seem to ask questions that literally were never mentioned in class or on lecture slides. The class is very helpful in understanding the main concepts and homework, but the tests seem to be completely unrelated. |
| If possible, add some industry knowledge about genetics during the course will be more interesting. |
| The homework assignments helped my comprehension of the course content, but they are difficult and take a long time to complete and should therefore account for a greater percentage of the overall grade. I do not think the mid–term exam was an effective way of assessing student performance, as the format (multiple choice questions) is much different from the application of knowledge and skills in the real world. However, the mid–term forced me to study the material more heavily for a period of time, so I think it should be kept for future classes, although the percentage of the overall grade allocated to it should be reduced.

The treatment of statistics in this course could also be improved. Many of the lectures had slides presenting complex statistical models with little or no explanation, making comprehension difficult.

As a final comment, I came into this class with a superficial understanding of GWAS and without ever having coded in any programming language. My ability to solve problems computationally has improved immeasurably, which has made my own research activities more efficient. |
| Basically what I have already said. The HW should be a larger proportion of the overall grade.

For students who do not have any R experience basic tutorials should be completed/provided before starting the course. |
| For the second assignment, we are expected to find our own dataset. You assumed that we all knew the format for a proper dataset, and it was very frustrating to find one. Please inform future classes on the structure of a data set and how to find one. I spent several hours trying to find a dataset, and was not sure if the one I had found was actually proper.

It is annoying that GAPIT is not held to the same documentation standards that we are. It is very difficult to find information on different functions, and the way it is loaded into r is archaic. GAPIT needs to be updated to be a proper package.
– Example: GAPIT.FDR.TypeI has no mention of MaxBP variable in its documentation, but relies on it.

Personal opinion is that if a class does not have a text book, that the powerpoint slides should explicitly discuss in words all of the material covered on that slide. Sometimes it was confusing looking back at slides, as they sometimes just have images with no explinations.

Only have one blackboard that is used for both class and lecture. Two blackboards seems weird. I liked that you had a seperate website for course materials, Blackboard is a terrible terrible website.

Abbreviations in source code are confusing, they are usually mentioned once, and then it is assumed we have them memorized. They are probably intuitive to you since you work with them as a career, but they are rather opaque to a new user. It would be nice to have a "cheat sheet" which explains all abbreviations used in equations and in slides. |
| I just want this course to have more information on the slides or just some textbooks which can be followed for better understanding of the course materials. |
| I found the Homeworks to be quite difficult and took me a lot of time to complete. But I learned so much from them. I learned just as much struggling through the homework as I did in the lecture, so the struggle was worth it. To improve the course I would increase the total percent of the grade tied to the homeworks.as the amount of time spent on them justifys it.

The exam on the other hand I did not feel like they tested my knowledge of the class. So while I did very well on the homeworks and felt like I was leaning the class material very well I did terrible on the exams and did feel like they reflected my class performance very well. I would recommend lowering the percent of the total grade tied to the exams. |

Student Effort and Responsibility

How often do you do the following to learn in this course, ANIM_SCI 545/BIOLOGY 545/CROP_SCI 545/HORT 545/PL_P 545 (24799;24857;24858;24859;24860) Statistical?

	Count	Median	Mean	Always/Very Often	%	Sometimes	%	Rarely/Never	%
I read and refer to the course syllabus and course schedule.	9	5.0	4.6	8	89%	1	11%	0	0%
I read the assigned readings.	9	5.0	4.7	9	100%	0	0%	0	0%
I attend class.	9	5.0	4.8	9	100%	0	0%	0	0%
I come to class prepared and ready to participate in class activities and/or discussion.	9	5.0	4.7	8	89%	1	11%	0	0%
I take notes in class.	9	5.0	4.6	7	78%	2	22%	0	0%
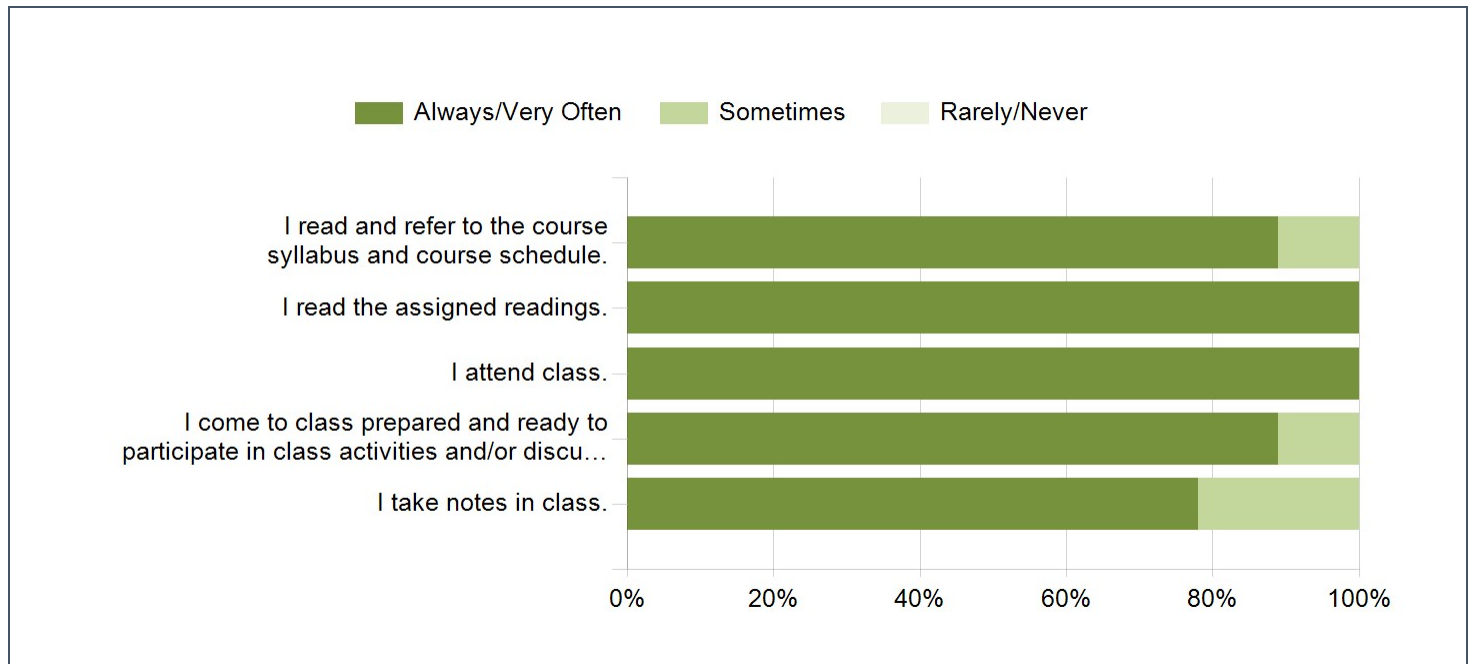
Typically, how much time PER WEEK do you spend on this course outside of class?

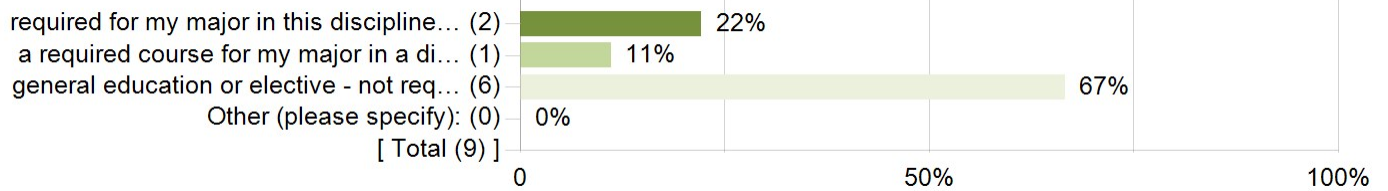| 1. Typically, how much time PER WEEK do you spend on this course outside of class? |
|---|

Less than or equal to 3 hours (0)	0%
4-5 hours (0)	0%
6-7 hours (1)	11%
8-9 hours (1)	11%
10-11 hours (2)	22%
12-13 hours (2)	22%
Greater than 13 hours (3)	33%
[Total (9)]	

Statistics	Value
Response Count	9

This course is...

1. This course is...

|	
required for my major in this discipline... (2)	22%
a required course for my major in a di... (1)	11%
general education or elective - not req... (6)	67%
Other (please specify): (0)	0%
[Total (9)]	

Statistics	Value
Response Count	9

Questions about the Instructor

This section provides two summary views followed by breakdowns by question.

## How often does your instructor Zhiwu Zhang do the following?

My Instructor...

|	Count	Median	Mean	Always/Very Often	%	Sometimes	%	Rarely/Never	%
displays enthusiasm about the subject matter.	9	4.0	4.4	9	100%	0	0%	0	0%
seems to have a well-developed plan for class sessions.	9	4.0	3.9	7	78%	1	11%	1	11%
communicates course material in a clear and organized way.	9	3.0	3.1	2	22%	5	56%	2	22%
encourages active student participation (discussions, group work, presentations, questions, etc.).	9	4.0	4.1	7	78%	2	22%	0	0%
provides timely feedback on my work (a reasonable expectation is to receive feedback on an assignment within 2 weeks).	9	4.0	3.8	5	56%	4	44%	0	0%
clearly communicates expectations for student performance; I understand why I get the grades I get.	9	4.0	3.8	6	67%	2	22%	1	11%
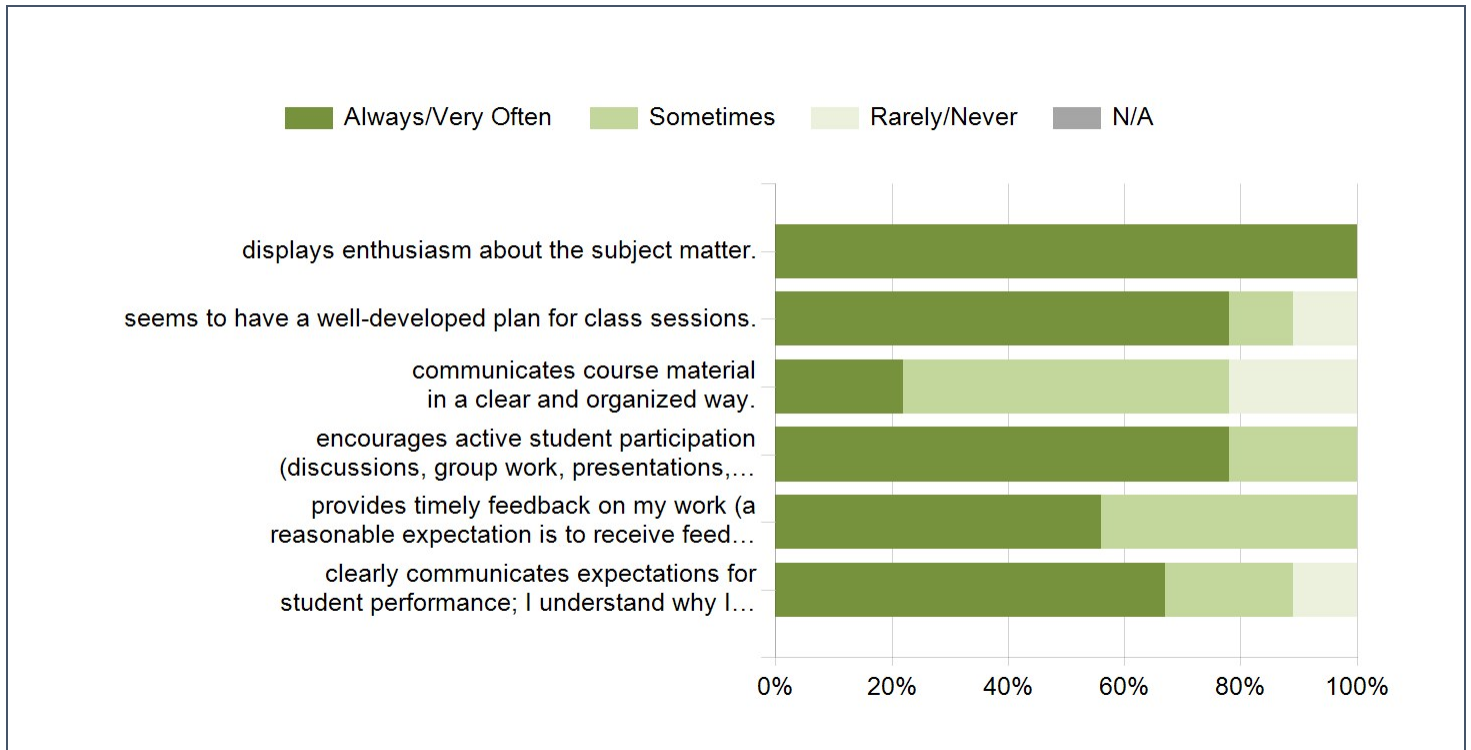
How often does your instructor Zhiwu Zhang do the following?

## 1. displays enthusiasm about the subject matter.

Always (4)	44%
Very Often (5)	56%
Sometimes (0)	0%
Rarely (0)	0%
Never (0)	0%
[Total (9)]	
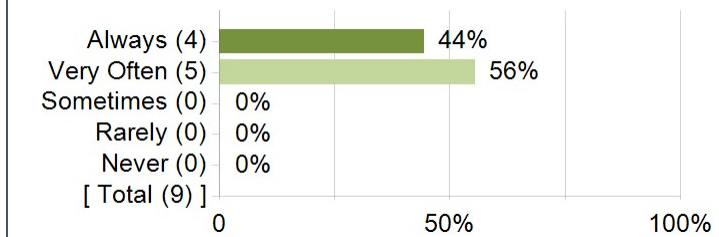
Statistics	Value
Response Count	9
Mean	4.4
Median	4.0

2. seems to have a well-developed plan for class sessions.

Always (2)	22%
Very Often (5)	56%
Sometimes (1)	11%
Rarely (1)	11%
Never (0)	0%
[Total (9)]	
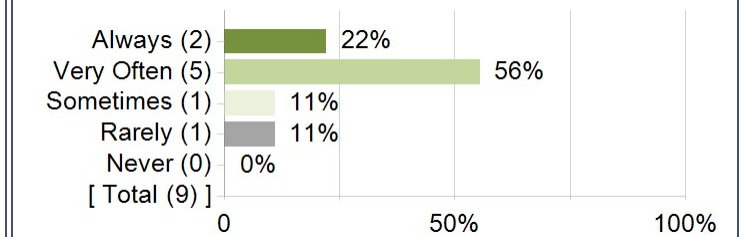
Statistics	Value
Response Count	9
Mean	3.9
Median	4.0

3. communicates course material in a clear and organized way.

|	
Always (1)	11%
Very Often (1)	11%
Sometimes (5)	56%
Rarely (2)	22%
Never (0)	0%
[Total (9)]	
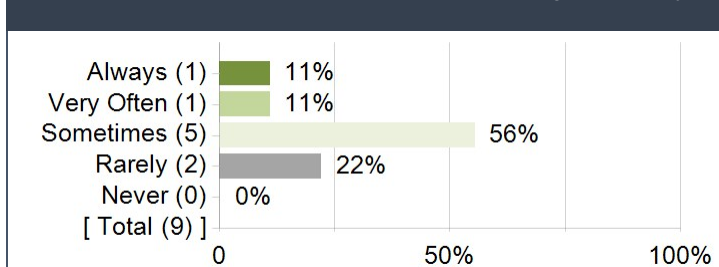
Statistics	Value
Response Count	9
Mean	3.1
Median	3.0

4. encourages active student participation (discussions, group work, presentations, questions, etc.).

|	
Always (3)	33%
Very Often (4)	44%
Sometimes (2)	22%
Rarely (0)	0%
Never (0)	0%
[Total (9)]	
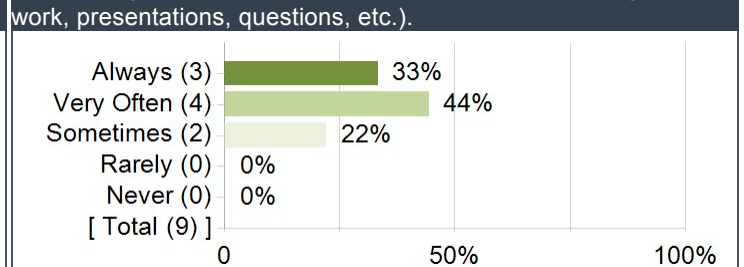
Statistics	Value
Response Count	9
Mean	4.1
Median	4.0

5. provides timely feedback on my work (a reasonable expectation is to receive feedback on an assignment within 2 weeks).

Always (2)	22%
Very Often (3)	33%
Sometimes (4)	44%
Rarely (0)	0%
Never (0)	0%
[Total (9)]	
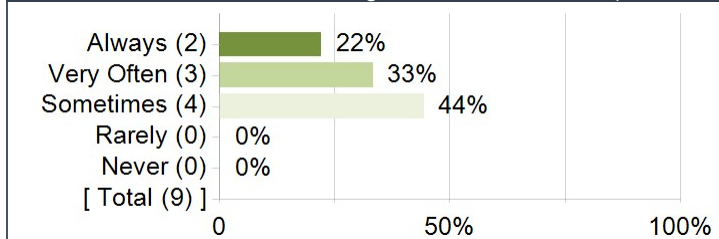
Statistics	Value
Response Count	9
Mean	3.8
Median	4.0

6. clearly communicates expectations for student performance; I understand why I get the grades I get.

Always (2)	22%
Very Often (4)	44%
Sometimes (2)	22%
Rarely (1)	11%
Never (0)	0%
[Total (9)]	
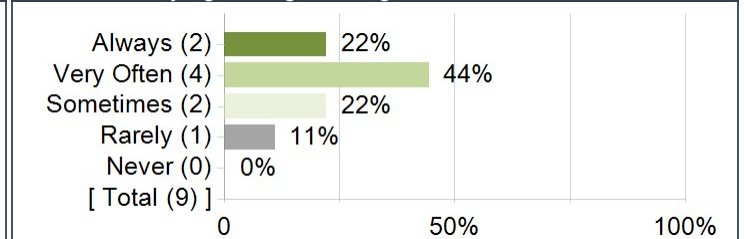
Statistics	Value
Response Count	9
Mean	3.8
Median	4.0

What are the strengths of Zhiwu Zhang as an instructor?

Comments
He is very knowledgable on the subjects.
Clear explanation Abundant genetic statistic knowledge
Dr. Zhang's passion for the field comes across in lecture. He is always willing to clarify concepts when requested.
He is very kind and understanding. In addition, he connects the course material to real life examples from his research and others. This makes the course material interesting and exciting to learn.
Very Knowledgeable about GWAS and GS, very passionate.
He has indepth knowledge of the subject matter he is teaching.
Dr. Zhang is an expert in this field of study and knows his stuff very well. I really enjoy being taught by someone who is on the cutting edge of the research area.

What are one or two specific things the instructor, Zhiwu Zhang, could do to improve his/her teaching?

Comments
Sometimes when the subject matter is really advanced, he doesn't always explain it in an introductory way or really explains why/how it works.
Try to change the style of teaching in the middle of course is kind of hard to get with it.
The expectations for learning are not always clear. For example, some lectures contained relatively complex statistics (e.g., regression equations and Bayesian stats), and it was not clear to what extent the student was expected to understand that material. Some powerpoints have slides that are not easy to understand without looking back at the video recording of the lecture. For example, graphs could be labeled better to improve student comprehension.
I would have liked to see more detail in the lectures. I also would have liked most of the grade to be weighted on HW scores since each took me about 25–35 hrs.
It would be nice if the code presented in lecture was annotated to the same level that is expected on homework assignments. It's borderline indecipherable in many places, especially for students with poor coding skills.
It seems that Dr. Zhang assumes that students understand things when we do not. When he asks if there are any questions, and no one answers, he assumes that we understand. It is probably the opposite. I really enjoyed the first lecture on Bayes, as it started from a point that was accessible by everyone. I felt that often a new subject was introduced a few levels to high. It would be beneficial to try to start each new topic at a higher level, as students will be able to follow more. A few additional high level slides would be beneficial.
He could focus more on using concepts in his slides as sometimes it becomes difficult to know information on the slides as there is less information and more codes
N/A

Questions about the Course

How strongly do you agree or disagree with each statement about this course?
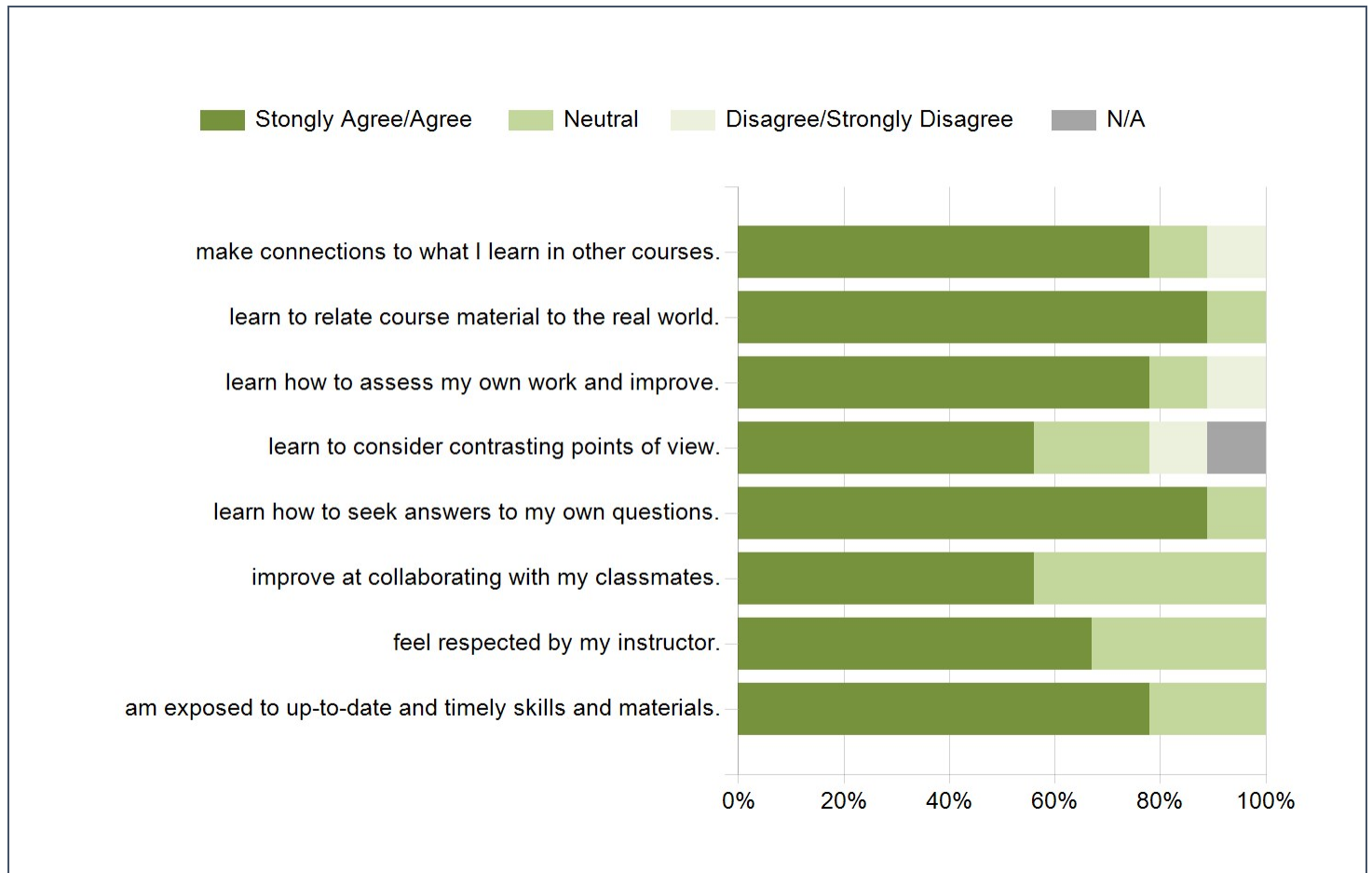**The following elements of this course help me learn:**

	Resp	Median	Mean	Strongly Agree/Mildly Agree	%	Neutral	%	Mildly Disagree/Strongly Disagree	%
Textbook and/or other readings	8	3.0	3.0	2	25%	4	50%	2	25%
Presentations by the instructor	9	4.0	3.9	6	67%	3	33%	0	0%
Class discussions and activities	9	4.0	3.8	6	67%	3	33%	0	0%
Labs	9	4.0	4.3	8	89%	1	11%	0	0%
On-line activities	6	4.0	4.0	4	67%	2	33%	0	0%
Homework assignments	9	5.0	4.3	7	78%	2	22%	0	0%
Presentations I prepared and gave	3	3.0	3.7	1	33%	2	67%	0	0%
Group work	8	4.0	3.9	5	63%	3	38%	0	0%
Videos	6	4.0	3.7	4	67%	1	17%	1	17%
Guest lectures	5	5.0	4.2	3	60%	2	40%	0	0%

Please provide comments about what elements of the course did or did not help you learn:

Comments
This course provide me a very Comprehensive map or guider about the GWAS and GS. It is very useful.
The homework assignments were very helpful for building proficiency in R and understanding differences among GWAS and genomic prediction methods.
The midterm is not helpful in its current format. I think it should still be included but a lower percentage of the overall grade so students know what to expect for the final but if you do poorly it doesn't tank your grade. The HW takes so much of your time and is where most of my learning occurred so I think it deserves to be approx 50% of the course grade.   The lectures would benefit from more detail especially in the last half of the course after the midterm.   In addition, HW rubrics should be provided at the start of the semester so students do not mis–interpret what is expected of their work.
Lectures are poorly structured, it's difficult to understand what instructors would like students to take away from the course material. Walking through slide after slide of code with poor annotation is difficult to understand and hard to follow. It frequently felt like the lecturer would have to read the slide through completely before presenting it.
I personally did not enjoy when we tried to do the reverse classroom. It was not executed in a manner which I thought was condusive to my learning. I also would like the lecture slides to have more words on them describing what was being discussed. Since there is no text book for this class, the slides become the text book. Alot of the time when I would go back to the slides, I felt like there was not enough information on them to remind me of what was being discussed.
There is no specific text book for the course and so it is not much help to understand the subject matter. Mostly I have to rely on slides only and the slides does not have detailed information as well.
N/A

How strongly do you agree or disagree with each statement about this course?

In this course, I ...

Legend: Stongly Agree/Agree · Neutral · Disagree/Strongly Disagree · N/A

Statements:
- make connections to what I learn in other courses.
- learn to relate course material to the real world.
- learn how to assess my own work and improve.
- learn to consider contrasting points of view.
- learn how to seek answers to my own questions.
- improve at collaborating with my classmates.
- feel respected by my instructor.
- am exposed to up-to-date and timely skills and materials.

Please comment on which skill/item above is particularly valuable to you and why it is valuable.

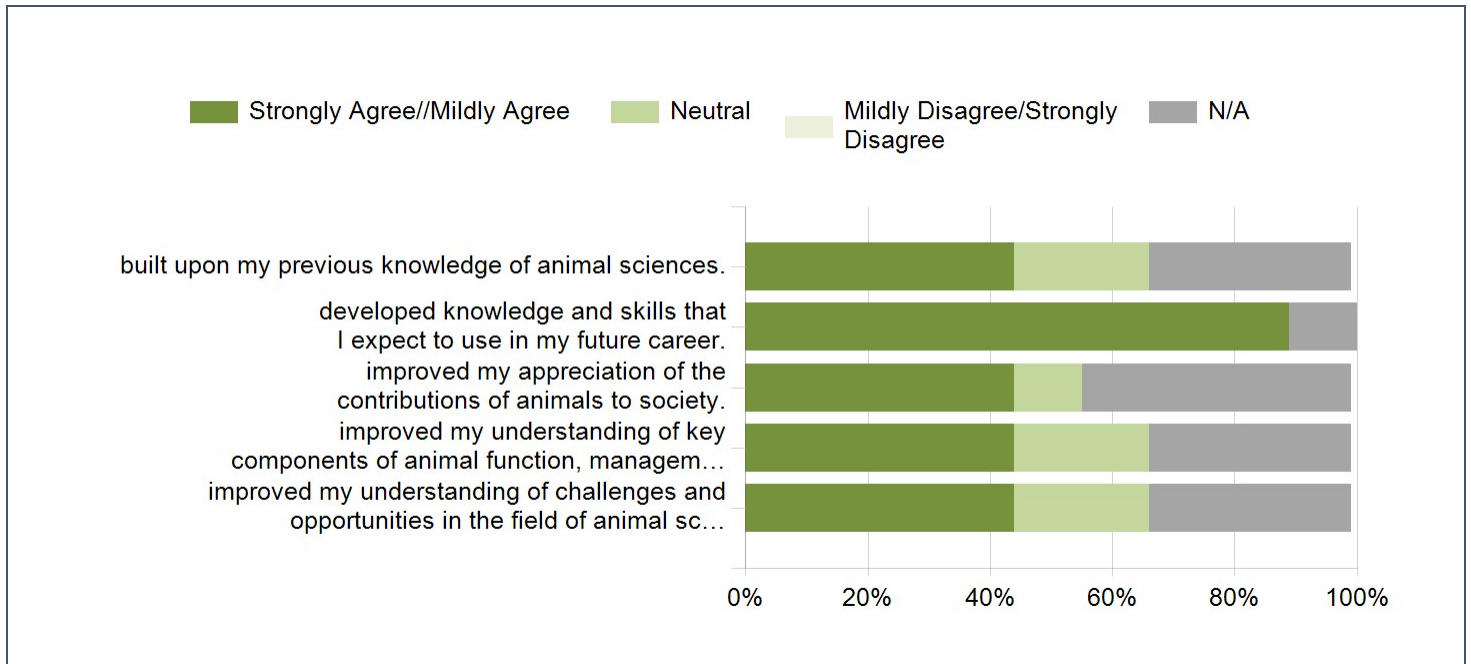| Comments |
| --- |
| up–to–date materials let me keep touch with the new staff of genetic statistics |
| The last item was particularly valuable to me. Learning about the various tools that have been developed over a few decades, including new methods, is important for understanding how the improvement of GWAS and genomic prediction methods over time. The comparisons among different methods in terms of power and performance for varying genomic architectures will be useful when applying these methods to real data. |
| The respect Dr. Zhang shows his students is commendable and appreciated. |
| I felt that the infromation contained within this course was a valuable resource. I knew very little about GWAS and GS prior to this, and I feel I know more now. |
| Understanding the data, analyzing it and interpreting the data is the major achievement that I gain from this course |
| Relate course material to the real world and potentially my own research. The Home Works and labs provided me with code that I could use in the future. |

Questions about Animal Science

How strongly do you agree or disagree with the following statements?

In this course, I have...

	Count	Median	Mean	Strongly Agree//Mildly Agree	%	Neutral	%	Mildly Disagree/Strongly Disagree	%
built upon my previous knowledge of animal sciences.	6	4.5	4.2	4	67%	2	33%	0	0%
developed knowledge and skills that I expect to use in my future career.	8	5.0	4.8	8	100%	0	0%	0	0%
improved my appreciation of the contributions of animals to society.	5	4.0	4.2	4	80%	1	20%	0	0%
improved my understanding of key components of animal function, management or production.	6	4.0	4.0	4	67%	2	33%	0	0%
improved my understanding of challenges and opportunities in the field of animal sciences.	6	4.5	4.2	4	67%	2	33%	0	0%

End of Report