Quick Report for Zhiwu Zhang CROP_SCI 545

2016 Spring College of Agricultural, Human, and Natural Resource Sciences

Project Audience 19
Responses Received 15
Response Ratio 79%

Report Comments

Instructor Quick Report for CROP_SCI 545.01;03;04-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..

Creation Date Fri, May 20, 2016

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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:

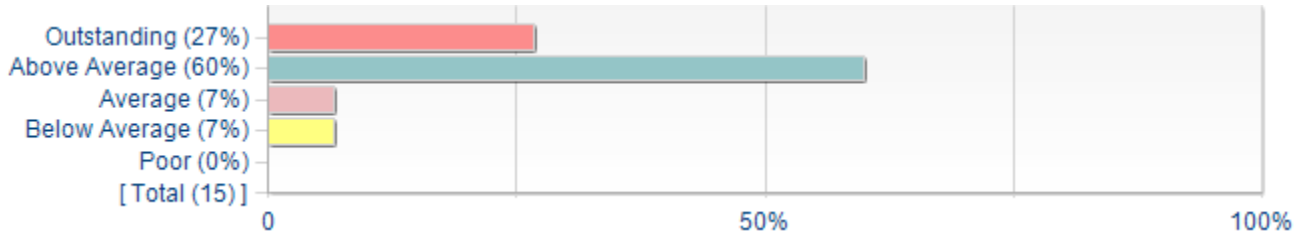
- Frequency distributions of student responses to individual questions
- Mean and median values
- Student comments at the end of each question group
- Overall response rate; and response counts for each question
- See Making Sense of Course Evaluations and Midterm Feedback from Students: A Quick Guide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

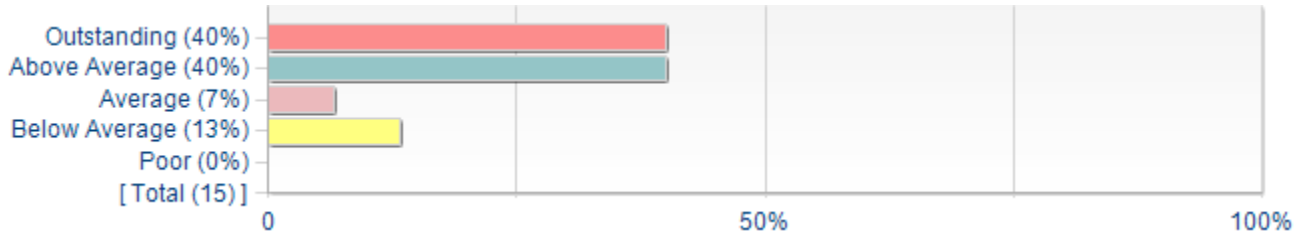
Overall

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



Statistics	Value
Response Count	15
Mean	4.1
Median	4.0

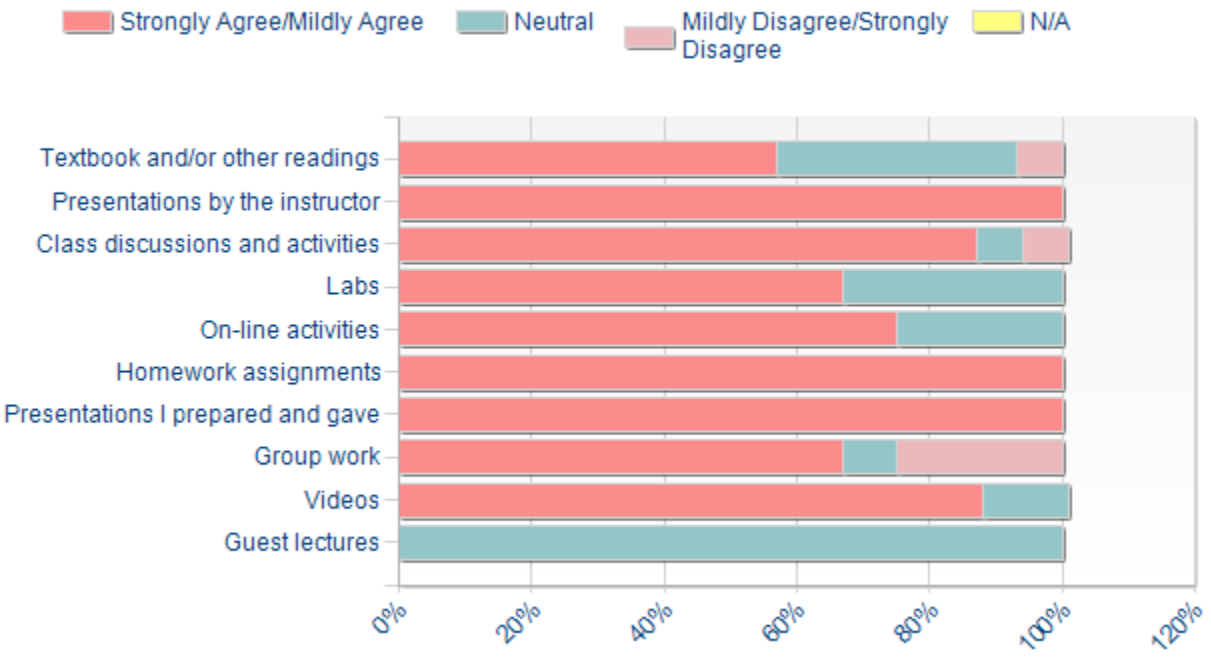
What is your overall rating of this course?



Statistics	Value
Response Count	15
Mean	4.1
Median	4.0

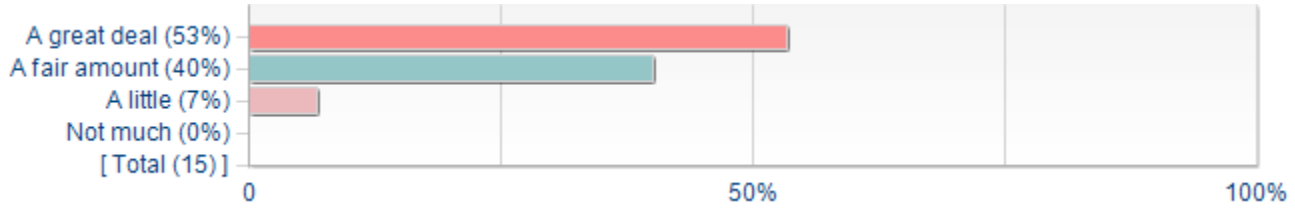
How strongly do you agree or disagree with each statement about this course?

The following elements of this course help me learn:



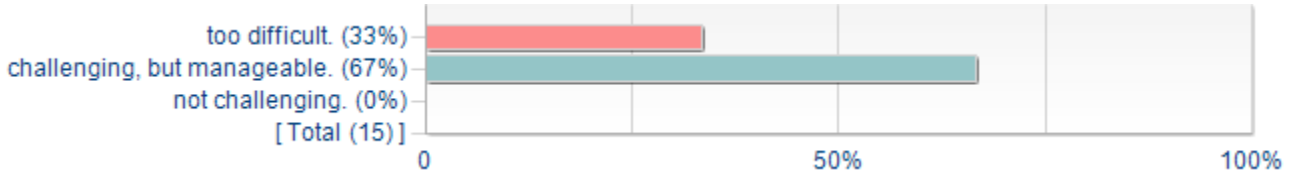
Overall Student Experience

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



Statistics	Value
Response Count	15
Mean	3.5
Median	4.0

Overall, this course has been…



Statistics	Value
Response Count	15

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

Comment
It was hard for me to follow the model development and programming. My expectations were to analyze my data and interpret my data using R studio (GAPIT)
It's important to have at least a little bit in R programing background in order to perform correctly the homeworks. Besides, the statics concepts sometimes are confused and hard to understand. .
It has been challenging because the topics are hard to understand and include a fair knowledge of the R program.
it was challenging because I had to learn a new language, the language of coding
because the subject matter was completely new to me and we went through it at such a fast pace, and because the code given to us was often buggy and had to be troublshot, and because I don't have enough understanding of the programming language or higher statistics to have done the work without collaborating with classmates on the homework assignments, I usually spent upwards of 20 hours on each homework assignment. For an undergraduate class, this might be a fine amount of time for one class, but for a graduate class, this course took much too much time away from my research, and I am only trying to pass it (I switched to a pass/fail grading scheme for this class after the first week). a better choice for the homeworks, perhaps, might be to give us code for the specific problems, and ask us to annotate it, so it is clear that we understand what everything does, but do not need to troubleshoot and design new code (at least for the bulk of the assignments). NOTE: for the overall rating below, I think the subject is important, and the class is incredibly useful. however, I gave the course a lower rating because of the incredible amount of time it requires, and the lack of prerequisites.
I am not expert in GWAS.
Not too much details about population genetics, quantitative genetics. Homework is time consuming The coding is excellent.
This course has pushed me to keep learning and using the R software
A lot was expected of us. I think the time expectations should have been more clear in the beginning. I think instead of saying 10 hours for completing homework it should have been stated that between writing code and writing a report that 20 hours would be a more reasonable. concepts were challenging.
very good
The homework assignments have taken far too much time and frustration. I would like to spend more time understanding the material, but I struggle to get the assignments finished on time nonetheless to fully understand them.
The class demands that you think, but Dr. Zhang is always available to answer questions and he never asks you to do things he hasn't prepared you to do.
Yes it is hard but Dr. Zhang has made the resources available and himself available for help. It was actually refreshing to take a course that is challenging. Many courses shy away from difficult advanced concepts.
This course was almost too challenging; the homework assignments were big and it was sometimes difficult to know where to seek help with them. But they were just about manageable. Maybe it would help if Dr Zhang spent more time in class discussing the best approach to answering the homework questions.

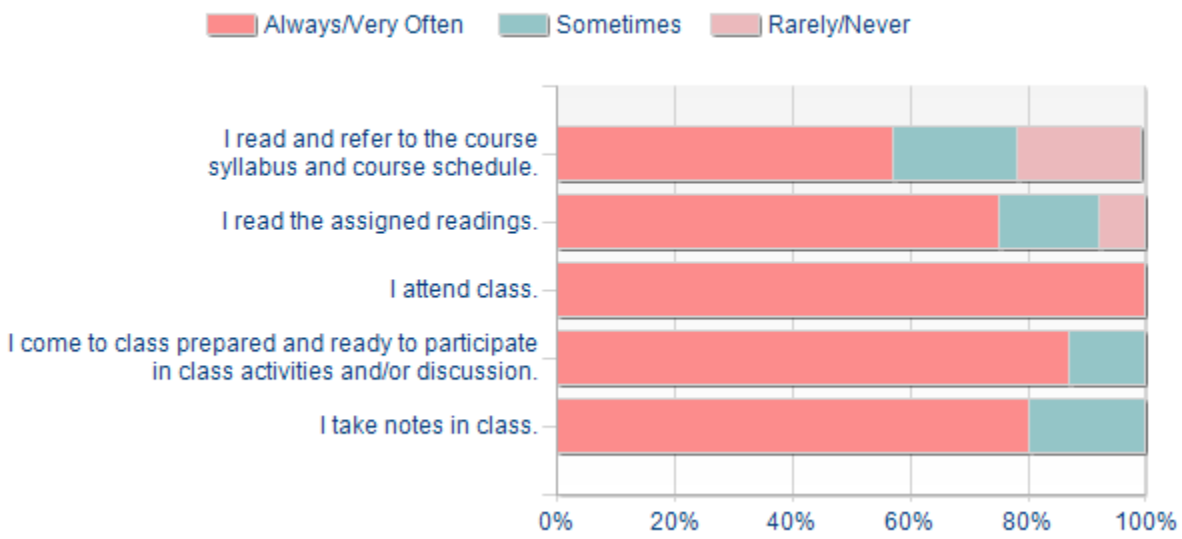
Overall, what suggestions or changes, if any, would you make to improve the content or format of this course regardless of who is teaching it?

Comment
This course needs to go in-depth on how to analyze and interpret data. Which output from GAPIT is useful and why. We need to interpret all the outputs from GAPIT. Which model is the best and why? GLM, MLM, CMLM, Fast, SUPER etc
decrease the amount of material covered, decrease the amount of questions per homework assignment, and add some prerequisites. it would have been incredibly helpful to have known what I was getting myself into. I knew it would be hard, but I didn't know that I would be expected to know so much already, and that the basics of genomics would not be covered.
Dr. Zhang is great scientist, I wish I understood his course. sometimes I get lost because there in no proper introduction to terminology or justification to why we are doing particular program
Provide more details of quantitative genetics, e.g.:to explain what is heritability, etc
It would be great if we learned more applied skills like experimental design and how to work with data from multiple environments/replications. - i.e. how to make BLUP adjustments for specific field designs.
I think as well as other students I have talked to that adding a lab portion to this class would be extremely helpful. I like that code was mostly given to us but I think it would be more beneficial to have done all the coding in the lab section and also have time to ask more questions while we were working on it. Then the homework assignments could be the same but at least everyone would have good working code to write reports. It was difficult learning R for the first time and then having to debug code. I also think that asking students who have done well and understand concepts in this class to be TAs for the next time this class was taught would also be helpful. Maybe a quiz every couple weeks would also be beneficial, this would help students know the kinds of questions and concepts that would be asked in a midterm or final and help re-enforce the concepts and could give the instructor a good idea of concepts that may need to be covered again.
The course is better than GWAS (one credit course) materials
This course should have a prerequisite of R coding knowledge. I came into this class not even knowing how to execute a line of code. I kept hitting "enter" instead of "ctrl+R" or even the run button. There was no time for a learning curve. Also, I spent >20 hours on the code portion of each homework. Then running the code again, analyzing the results, and writing the report took another 3-7 hours. This course alone would be a heavy course-load. Taking numerous other classes as well allows me almost no time for my own research. The first homework did not serve as a good gauge for what to expect from the class. In fact, it was by far the hardest assignment. Perhaps assignments 2-6 could each be shortened.
Having the class on Friday afternoons from 3-4:30pm is kind of hard, because at the end of the week I am very tired.
Perhaps we will cover this before the semester ends but something I am concerned about that I think should be in the course is best practices for experimental design in GWAS. Before we analyze how can I get really good data so that I don't get the misleading results we hear about so much. Specifically I mean field design choice, population and family choice etc.

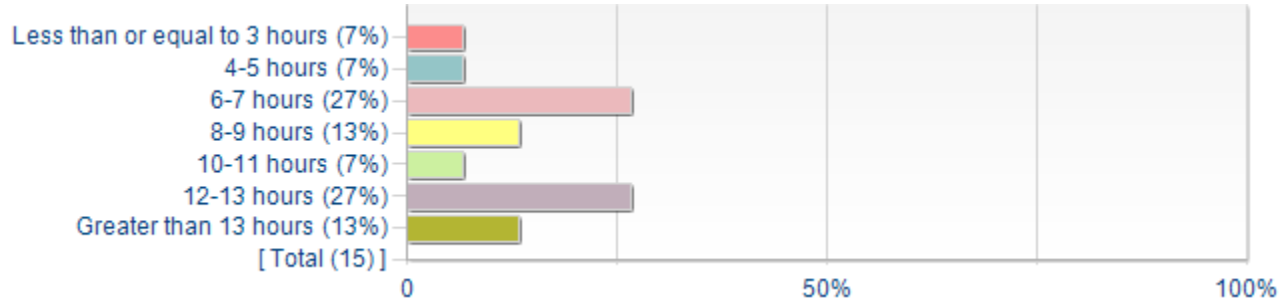
Student Effort and Responsibility

How often do you do the following to learn in this course, CROP_SCI 545 (8411;8413;8414) Statistical Genomics?

	Count	Median	Mean	Always/Very Often	%	Sometimes	%	Rarely/Never	%
I read and refer to the course syllabus and course schedule.	14	4.0	3.6	8	57 %	3	21 %	3	21 %
I read the assigned readings.	12	4.0	3.8	9	75 %	2	17 %	1	8 %
I attend class.	15	5.0	4.9	15	100 %	0	0 %	0	0 %
I come to class prepared and ready to participate in class activities and/or discussion.	15	4.0	4.3	13	87 %	2	13 %	0	0 %
I take notes in class.	15	5.0	4.5	12	80 %	3	20 %	0	0 %

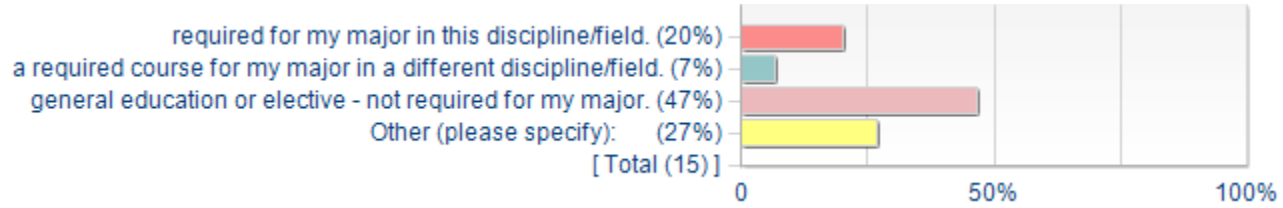


Typically, how much time PER WEEK do you spend on this course outside of class?



Statistics	Value
Response Count	15

This course is...



Statistics	Value
Response Count	15

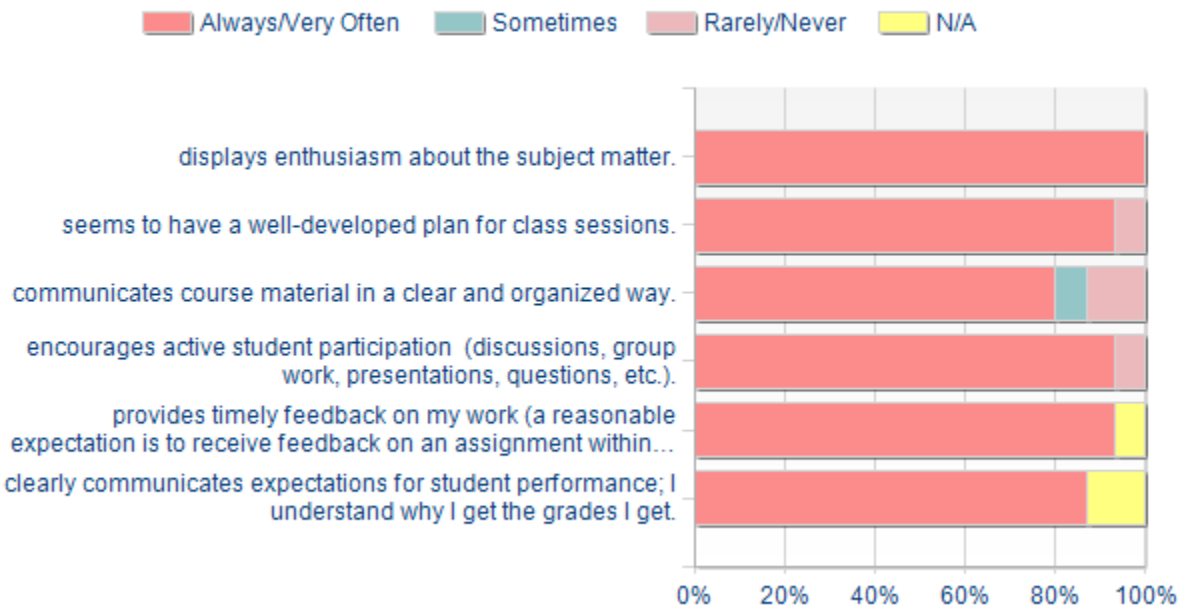
Questions about the Instructor

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

How often does your instructor Zhiwu Zhang do the following?

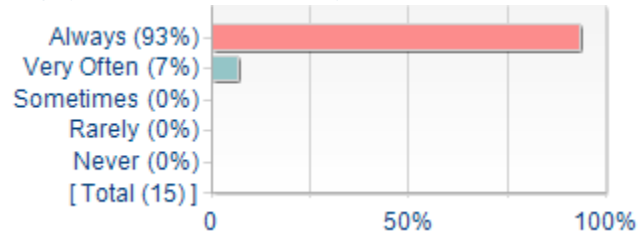
My Instructor...

	Count	Median	Mean	Always/Very Often	%	Sometimes	%	Rarely/Never	%
displays enthusiasm about the subject matter.	15	5.0	4.9	15	100 %	0	0 %	0	0 %
seems to have a well-developed plan for class sessions.	15	5.0	4.8	14	93 %	0	0 %	1	7 %
communicates course material in a clear and organized way.	15	4.0	4.1	12	80 %	1	7 %	2	13 %
encourages active student participation (discussions, group work, presentations, questions, etc.).	15	5.0	4.6	14	93 %	0	0 %	1	7 %
provides timely feedback on my work (a reasonable expectation is to receive feedback on an assignment within 2 weeks).	14	5.0	4.6	14	100 %	0	0 %	0	0 %
clearly communicates expectations for student performance; I understand why I get the grades I get.	13	5.0	4.8	13	100 %	0	0 %	0	0 %


Always/Very Often
Sometimes
Rarely/Never
N/A
displays enthusiasm about the subject matter.
seems to have a well-developed plan for class sessions.
communicates course material in a clear and organized way.
encourages active student participation (discussions, group work, presentations, questions, etc.).
provides timely feedback on my work (a reasonable expectation is to receive feedback on an assignment within...
clearly communicates expectations for student performance; I understand why I get the grades I get.
0%
20%
40%
60%
80%
100%

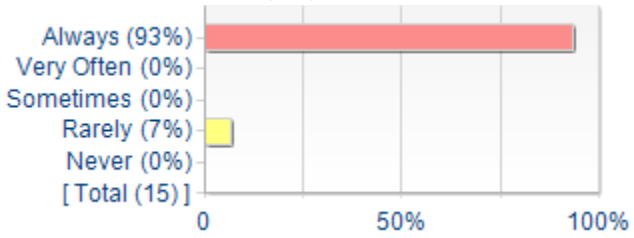
How often does your instructor Zhiwu Zhang do the following?

1. displays enthusiasm about the subject matter.



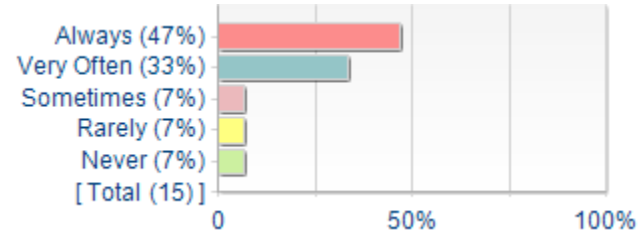
Statistics	Value
Response Count	15
Mean	4.9
Median	5.0

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



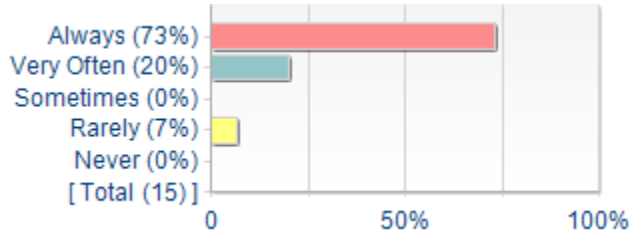
Statistics	Value
Response Count	15
Mean	4.8
Median	5.0

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



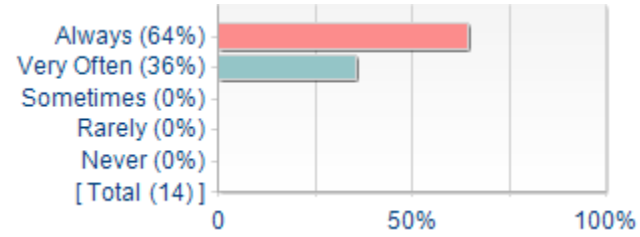
Statistics	Value
Response Count	15
Mean	4.1
Median	4.0

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



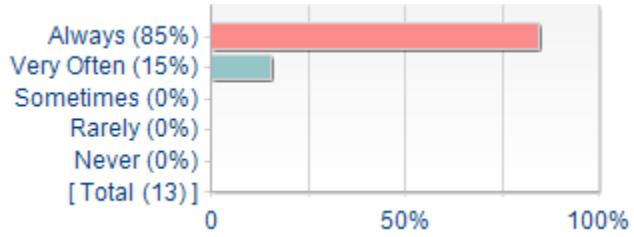
Statistics	Value
Response Count	15
Mean	4.6
Median	5.0

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



Statistics	Value
Response Count	14
Mean	4.6
Median	5.0

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



Statistics	Value
Response Count	13
Mean	4.8
Median	5.0

What are the strengths of Zhiwu Zhang as an instructor?

Comment
He is really good on Statistics and bioinfomatics
He knows a lot about the topic. His lectures are very good designed and helpful
- Passion for what he teaches - Competent - Open minded - Friendly
Dr. Zhang truly knows his subject; he has very deep knowledge of what he's teaching. He also spends a lot of time preparing for his lectures - we can see that when a student asks him a question. He's very friendly to the students, and really appreciates student feedback. He responds quickly to student concerns. In class, he encourages students to ask questions and make comments, and he has made a very difficult subject matter more accessible. He is a good teacher.
he is enthusiastic and seems to really care that we learn the subject matter
R-coding GWAS
He is passionate about his work and is excited about teaching the material
He clearly cares about his students- that they are learning and understanding the course material. He is a good communicator and requests feedback to improve the course.
energetic, knows material, explains concepts multiple times to reiterate points,.
he is a hard worker, always prepared
Very enthusiastic. Very willing to help.
He is patient, he really thinks about how he can communicate complicated ideas, he always provides a story to help us understand concepts, and he begins every lecture with a review of the material we last covered. Dr. Zhang is one of the best teachers I have ever had.
Dr. Zhang has many strengths. Dr. Zhang has a lot of enthusiasm for statistical genetics. His enthusiasm is really encouraging to students because students feel that he is making it worth our time to struggle to learn these concepts. I know that he is thinking as hard as I am to communicate difficult concepts. Another strength is that Dr. Zhang's use of stories, analogies, and simplified examples. I particularly like his story about the bear collecting corn. I think that those analogies are an undervalued teaching tool. Also he at times makes his calculations extremely explicit in his presentations (both R code and chi-sq examples. That is huge benefit to me and it is rare for a professor to explain with so much clarity. A related strength is that Dr.Zhang is willing to tackle concepts from the very beginning. I have taken several stats courses an none of my former teachers never explained the relationships between statistical distributions. It is taxing to do but it fits with his teaching philosophy that learning is re-creating. Recreating this stuff has really helped me with grasping statistics and coding what I am thinking. His use of R as a teaching tool is a huge strength. The novel uses of using time elapse graphics or the video of the balls falling into a normal distribution were really helpful. His use of powerpoint is also usually very useful. He uses the technology to make things explicit rather than just using technology for the sake of ease. I like that. I also like that Dr. Zhang has rhythm and a plan; He communicates to students that the ideas are connected and that they evolved. And during class time the regular rhythm helps me know where the climaxes will be in the class. A related strength is Dr. Zhang's interest in history of statistical genetics and the humanity of the people involved in it. I think that this strength is actually under-utilized but it was helpful. For me historical approaches make a lot of sense. History is a popular field of study because it makes sense: they are real stories with real context. So many science courses cut out the context and the stories make no sense. I like that at for at least some of the concepts in class Dr. Zhang tells the context and story of who, what, when, where, why, how. Anyone can understand stories; very few people understand abbreviated matrix algebra. I think that utilizing this strength even more than he already does will make him an even more exceptional instructor.
Dr Zhang's enthusiasm about the subject matter of this class was visible and helped the students to feel more enthusiastic. He was good at portraying the development of the field of statistical genomics and making students feel that they had something to offer. He encouraged questions and creative thinking from the students. In these ways, he made accessible a field of study which can sometimes seem intimidating from the outside.

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

Comment
Talk more about application, and discuss about the output we are getting from GAPIT
try to work with more real data to be more practical the class. For example, run GAPIT with real data from one of students
- English
To give more reading materials, and to explain better the relationship of one topic to the next
often, I find we are covering so much information which is unfamiliar to me that I don't even know how to ask questions to clarify. I think the course covers far too much material, at least for a course that does not have pre-requisites concerning the programming language or higher statistics. I have a reasonable background in statistics, but this is my first exposure to statistical genomics, and he assumes that his students know quite a lot about statistical genomics, which I just did not know, coming in. I had to spend a lot of time outside of class looking up terms and figured out why we were doing things at all.
Great programmer, lot of knowledge. but poor communication. this course is very difficult to understand other than students in breeding programs.
Discuss more about Papers, do not only show paper title in the slide For the homework, the extra credits are too hard to get.
This GWAS course has taught me well about the fundamentals of statistcal genomics and association mapping. However, there is little emphasis on applied association mapping and more on the mathematical theory of the individual models. It would be beneficial to learn more about the applied methods - i.e. experimental design, execution, and interpretation of real data sets.
Repeat student questions in Pullman because it is often difficult to hear them over AMS.
Have other students try to answer questions to facilitate learning.
To initiate online group discussion to avoid answering question by other student when the question asked only to him
-Focus more on the theory than on the coding -Spend less time talking about the people who develop programs
I like to take notes on the lecture slides. I really appreciate that he is always thinking of ways to make his lectures better, but sometimes that means he doesn't post the powerpoint until very near the class time. Maybe if he could print off the lectures so students in Pullman could take notes that would help. I'm not sure what he could do for the off-campus people.
I think that Dr. Zhang could improve his teaching by disbelieving his students when asking "any questions?" or is "everyone understanding this?" I have been a teacher before and I know that when teachers ask this all they see is crowd of faces without any expression or seemingly disinterested looks. But the truth is in this class they probably are engaged. But when they don't have questions or say that they understand they probably actually don't understand. If he could get instantaneous feedback from students regarding comprehension it would be good for him and for them. Perhaps when he asks "any questions? " he could experiment with different techniques that solicit responses. For example maybe wait a full (painful) 30 secs for students to ask if they need to, or make a comprehension question mandatory when "any questions?" is asked, or perhaps grab a drink from the water fountain and then allow students to talk with neighbor (they can clarify with a peer or perhaps formulate a better question). Another aspect that could be improved is relating math to not-so-math people. Overall, Dr. Zhang has outstanding communication of math/stat concepts to students without the perfect stats background. He has achieved this by asking students to recreate concepts in hw by taking as much time as they need to code it. Students put in a lot of time in the course (and like it) because they feel empowered that this is something that they can actually do. I appreciated that and in fact think that his efforts should be commended. But everyone can always improve. One area that he could improve is in mathematical notation. For myself and many students math notation is another language. And while I may be able to read it I cannot comprehend or translate it. I also don't think that math notation should be done away with completely. But the fact is math notation doesnt speak to many people. I feel that once I understand something I can use notation, but initially it doesnt mean anything to me. I also know from some experience that using math notation in using math notation in powerpoint and Word is slow and tedious. So using it more sparingly could save time. I would welcome some experimentation in the future. Perhaps textual descriptions might speak to some people. For example " a vector of phenotype data" rather than "y" or "a matrix of encoded genotype values matrix multiplied by marker effects". In fact Dr. Zhang did do this in lec 13 slide 10. I think communicating these concepts are definitely a strength of his I think he should just utilize that strength even more; be more bold in this effort. If notation is used come up with novel ways to "translate" it.
I sometimes got lost in the complexity of explanations during class. I don't know if this can be addressed by any changes on the part of Dr Zhang, since the subject matter is inherently complex.

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	14	4.0	3.8	8	57 %	5	36 %	1	7 %
Presentations by the instructor	15	5.0	4.8	15	100 %	0	0 %	0	0 %
Class discussions and activities	15	4.0	4.3	13	87 %	1	7 %	1	7 %
Labs	3	5.0	4.3	2	67 %	1	33 %	0	0 %
On-line activities	4	4.5	4.3	3	75 %	1	25 %	0	0 %
Homework assignments	14	5.0	4.7	14	100 %	0	0 %	0	0 %
Presentations I prepared and gave	2	5.0	5.0	2	100 %	0	0 %	0	0 %
Group work	12	4.0	3.7	8	67 %	1	8 %	3	25 %
Videos	8	4.5	4.4	7	88 %	1	13 %	0	0 %
Guest lectures	2	3.0	3.0	0	0 %	2	100 %	0	0 %

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

Comment
My instructor talk a lot about model development. On how he develop different models on GAPIT. I appreciate that but I was more interested to know in-depth about data analysis and interpretation of the results we obtain from GAPIT
The homework are very useful to practice and understand the concepts. However, sometimes are very challenged them. The presentations are very good organized and designed. The group assignments help to understand much better the concepts. He should to encourage to do more work in group.
Elements that helped: -Homework assignments; -In class discussions; -Presentations Elements that did not helped: -Mathematic formula
the instructor was hard to understand sometimes, but went the extra mile to make sure he was understood, so far as language goes. the powerpoint presentations were well organized, and the homework assignments were helpful. However, it would have been good to have been given code that worked for the homework- the bulk of my time was often spent troubleshooting the code rather than learning how to do it, or why ti made sense.
It gave an introduction to R programming. I wish "Statistical genomics" included other areas like transcriptome analysis, instead of just focusing on GWAS. or else it should be mentioned prior to course lot of GWAS knowledge is required before this taking this course. Few courses in Genetics will not help in any way. this course is just good for students in breeding programs.
The presentation by the instructor helped me a lot. Homework feedback also helped.
I felt that there were way too many people auditing the class. Many people decided to audit this course because they felt it would be too difficult to complete the homework assignments and exams. Due to the large class size, interactions with the instructor were limited because his attention was divided between too many students. I don't think that students or post docs should be allowed to audit.
Submitting individual project could improve the skill efficiently

The homework was very helpful in learning R coding, but was not particularly helpful in learning to apply the programs we learned. I feel rather confident that I can use programs that are R-based. I do not feel confident that I can apply any of the methods that we learned in class to my current or future research. Sure, I can make SUPER run or make rrBLUP run, but I do not know very well what they actually do.

I treat the coding portion of each assignment as group work. I then do the analysis and report on my own. The group assignment was very frustrating because it is hard enough finding time to do the coding together, nonetheless to go through everything else together.

I thought it was nice Dr. Zhang gave his students the opportunity to lecture about their models, but they were kind of hard to follow.

I didn't consult the text book because it wasn't assigned reading. I say this with caution because if readings were assigned and its from a bad book that won't help anymore than not having readings at all. I have read many books on statistical genetics and they really are not written for a general audience as an intro to the subject. I doubt that having readings would help much. Reading those books is like coming into a theater 3/4 through the length of the film. No context. Presentations from the instructor were awesome but this is a lot of work for him. Class discussions were pretty rare because for many of us we don't fully get concepts in lecture. There were a few noteable discussions. I think discussions where students debate some of the "tension" of ideas could help us learn.

Group work happened in the course naturally.I think thats good. Normally group work is terrible. But working together on code for a hard problem is fun.

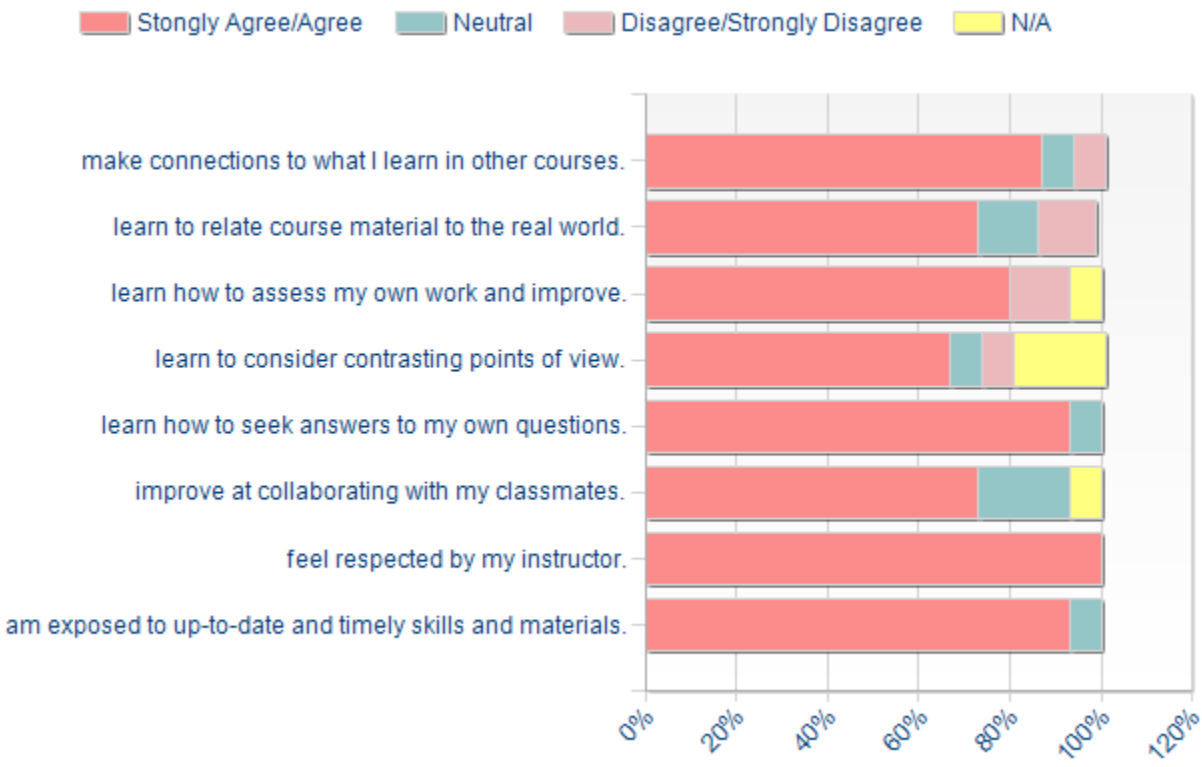
Homework was hard but good. I really learned stuff after the homework. Use of video in class was rare but excellent.

We did not give any presentations in the course. I doubt that any students have enough knowledge to present on things. Generally I don't like them. Here is an idea though.At the end of each lecture the last slide is a review of what we learned that day (I like that rhythm and practice). If a student was assigned a lecture to pay extra special attention and then give just a 1-2 min review extemporaneously of the concepts covered. Even if they mis-summarize other students will have the opportunity to correct and clarify the concepts stimulating discussion.

Homework was very challenging and took longer than I was led to expect at the start of the course, but it did force me to learn the subject matter very well and to improve my coding fast.

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

In this course, I ...



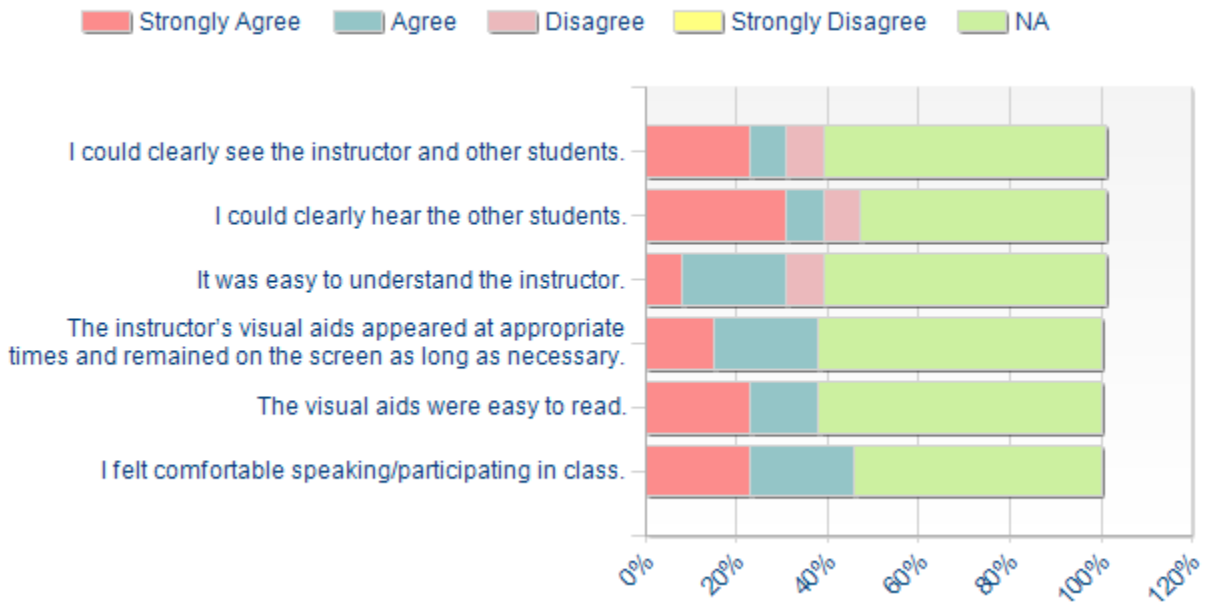
Please comment on which skill/item above is particularly valuable to you and why it is valuable.

Comment
Although I still cant interpret my results from R-studio but I do agree that I am more exposed to up-to-date materials
-Learn to consider contrasting points of view; -Learn to relate course material to the real world; -Feel respected by my instructor
i did learn how to troubleshoot my own code and seek answers to my own questions, which is valuable. however, i had to learn so much about this that i think i did not learn as much as i could have about the actual subject matter.
I didnot learn anything that I can relate to work I am doing
The valuable skill for me is to relate course material to the real world. For example, it's great to know how different models are used in GWAS, how to evaluate their power. It will help me to design my own GWAS.
The best part about the class is that is has caught me up on the latest models that are used in association mapping and now I feel comfortable using these tools.
If I had a GWAS project, this course would be extremely useful.
its valuable interms of plant breeding application
Learning to relate course material to the real world is very important. I want to be able to use the techniques that we learn in class for my own research (current and future). Unfortunately, I do not feel that I really understand what the main idea is behind each tool we have learned. FarmCPU returns a list of p-values for the association between markers and phenotypes. What do I do with that? GAPIT does a ton of different things. How do I choose which one to use?
Dr. Zhang taught me tools (example, power analysis, or comparing imputation accuracies, simulations) I can use for my own project. I really appreciate that he taught me how to THINK, and how to form hypothesis and test them with the tools he has taught us.
I feel that the instructor gives hard work but provides a lot of guidance and we definitely learn alot. He is working harder than we are by constantly updating GAPIT.
Big-data processing is a valuable skill in today's data-rich world, and this class is good for improving that skill.

AMS Student Experience

Please provide feedback about your experience as a student participating via video-conferencing. (Results may be shared with the instructor, department/college, and Global Campus.)

	Resp	Mean	Median	Strongly Agree	%	Agree	%	Disagree	%	Strongly Disagree	%
I could clearly see the instructor and other students.	5	3.4	4.0	3	60 %	1	20 %	1	20 %	0	0 %
I could clearly hear the other students.	6	3.5	4.0	4	67 %	1	17 %	1	17 %	0	0 %
It was easy to understand the instructor.	5	3.0	3.0	1	20 %	3	60 %	1	20 %	0	0 %
The instructor's visual aids appeared at appropriate times and remained on the screen as long as necessary.	5	3.4	3.0	2	40 %	3	60 %	0	0 %	0	0 %
The visual aids were easy to read.	5	3.6	4.0	3	60 %	2	40 %	0	0 %	0	0 %
I felt comfortable speaking/participating in class.	6	3.5	3.5	3	50 %	3	50 %	0	0 %	0	0 %



Please answer the following questions...

There is no data to show.

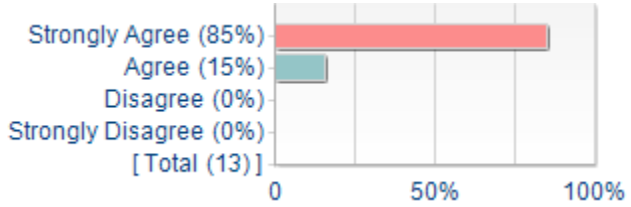
Overall...

There is no data to show.

Please provide comments about technology, delivery, experience

Comment
Technology was ok. No complains. The only thing is about content. I still cant interpret my results.
I did not use the AMS system
Great
As a student taking this course over AMS, I chose to audit because it is the sort of course that really requires in person student-student and student-professor interaction and collaboration to complete the homeworks. I feel like I would have had a very difficult time taking this course for credit over AMS. This has less to do with the technology and more to do with the challenging content of the course. That being said, it was a great course to audit and I still feel like I learned a lot.
AMS
AMS contributed little to my experience. The powerpoints were often too code-oriented. The examples and diagrams of theoretical concepts were most helpful.

Instructor experience...



Statistics	Value
Response Count	13
Mean	3.8
Median	4.0

End of Report