### **Teaching Statement**

Youngmin Park

### 1 Teaching Experience

Brandeis (2019-2021)						
Type	Class	Term(s)				
Lecture	Linear Algebra	Spring 2020				
University	of Pittsburgh (2013-2018)					
Lecture	Differential Equations (3 sections)	Summers, 2014–2017				
	Linear Algebra	Summer 2015				
	Discrete Math	Spring 2015				
Recitation	Computational Neuroscience	Summers, $2014-2017$				
	Business Calculus (6 sections)	Fall/Spring 2013/16				
	Calculus 1, 2, 3 (6 sections)	Fall/Spring 2014–2016				
Grading	Differential Equations (10 sections)	Fall/Spring 2013–2017				
	Complex Variables and Applications	Spring 2017				
	Linear Algebra (2 sections)	Spring 2016				
Oberlin (20	013)					
Assistant	Computational Neuroscience	Winter 2013				

My teaching experience spans eight years at three institutions. My teaching style has consistently led to strong teaching evaluations including a shortlist for the Elizabeth Baranger teaching award, an award which serves to recognize and reward outstanding teaching by graduate students at the University of Pittsburgh.

As the lecturer, I independently designed each course and prepared all materials including lectures, quizzes, tests, and homework assignments. In addition to grading, my teaching duties included meeting students during office hours, making additional appointments as needed. Each semester the class varied in size, ranging from 9 students to as many as 33.

Another substantial part of my teaching portfolio includes serving as a teaching assistant and leading recitations, where the main lectures were given by a professor. These recitations were for single- and multi-variable calculus classes. In a typical semester, I led three recitation sections per week, where I spent one hour per section teaching calculus concepts (in coordination with the lecturer), and spent another hour working with students in a computer lab. In the lab, students solved automatically-generated calculus problems (generated using Lon Capa), and I provided appropriate hints as they got stuck.

I also led recitations for a course in computational neuroscience. In these recitations, I answered students' questions, and wrote MATLAB scripts on-the-fly to demonstrate simple concepts behind neural models, such as the numerical integration of ordinary differential equations. I also served as the grader for this course, which consisted of 21 students. All recitations were supplemented by office hours and additional appointments as needed.

# 2 Teaching Philosophy

My teaching is fundamentally based on the belief that learning and understanding come with practice and context. To this end I provide challenges of varying difficulty in the form of assignments and in-class exercises to maximize exposure to the material.

The first step of familiarizing students with the material is to present and assign sufficient rote problems. These problems are "plug-and-chug" applications of formulas, which I believe to be absolutely crucial. In any other profession, improvement is achieved through practice. Musicians play scales and athletes drill. No matter the field, mastery of the most basic skills provides the foundation for advanced study. Through rote study, my students learn the notation, build a foundational understanding, and familiarize themselves with the language on which I build their knowledge.

The second step is to challenge the students. While rote practice is crucial, it is far from a complete learning paradigm. It is important to push students to see the bigger picture and apply fundamental skills in more challenging contexts. Derivatives are straightforward and are important to know, but they are most useful for solving problems such as related rates. Integral rules are good to know, but they are extremely useful for calculating areas and volumes. To aid in my students' understanding, I provide many examples of these applications.

To aid in these two steps, I assign students to work in pairs on straightforward problems and encourage discussion. This active discussion leads to a mutually beneficial give-and-take: as the students encounter difficulties, they ask each other questions. They often overcome these difficulties autonomously, teaching each other in their own words. These are the steps I take to provide students with a wealth of practice.

Learning mathematics without knowing where it came from or when it is used can be dangerously disengaging. To hedge against disengagement, I briefly cover history and applications where appropriate. In my linear algebra classes, I explain that the determinant – which today is learned as a property of matrices – was known long before matrices existed. It was the ancient Chinese that discovered determinants, and their mathematicians used the determinant to great effect solving systems of linear equations. Matrices as we know them today were formalized many centuries later, and only with great effort spanning many decades. Indeed, we see the payoff of this effort in the fundamental and ubiquitous usage of matrices and arrays in mathematics, science, engineering, and computer science.

In other lectures, I mention the many uses of eigenvalues in biology, physics, and chemistry. In particular, imaginary eigenvalues with a real component that changes from negative to positive (or vice-versa) plays a role in an incredible number of spatio-temporal dynamics, such as the formation of oscillating cortical waves observed during epileptic seizures, and the formation of patterns on animal hide. These are the steps I take to provide students with a wealth of context.

Finally, it is critical to note that adjusting my teaching style through experience is a high priority. As good pedagogical practices become known, I implement them where appropriate. Through this experience, I have found that a combination of rote practice, challenging applications, and context are effective teaching tools. However, I hold myself to high teaching standards, and believe that this process will be a long-long journey.

# 3 Summary of Selected Teaching Evaluations

Term	School	Course	Type	Teaching Effectiveness (out of 5)
Fall 2014	U Pitt	Calculus 1	Recitation	4.5
Summer 2015	U Pitt	Linear Algebra	Lecture	4.24
Summer 2016	U Pitt	Differential Equations	Lecture	4.4
Summer 2017	U Pitt	Differential Equations	Lecture	4.86
Spring 2020	Brandeis	Linear Algebra	Lecture	4.7

Brandeis University Math 15a (Linear Algebra) Student Feedback

Spring 2020

Submitted answers: 10

Questions: 13

#### Question

		never	rarely	sometimes	frequently	always	n/a - not applicable	
1	The instructor demonstrates command of the subject matter.	0	0	0	0.1	0.9	0	
2	The instructor is fully prepared for class.	0	0	0	0.2	8.0	0	
3	The instructor provides clear and comprehensive explanations.	0	0	0	0.4	0.6	0	
4	The instructor asks thought-provoking questions.	0	0	0.2	0.2	0.4	0.1	
5	The instructor encourages student discussions when appropriate.	0	0.1	0.4	0.2	0.2	0.1	
6	The instructor makes sure that everyone understands the material.	0	0	0.3	0.1	0.6	0	
7	The instructor is accessible when you seek assistance.	0	0	0	0.2	0.8	0	
8	The instructor provides helpful written comments on assignments.	0.1	0	0.1	0	0.7	0.1	Average
9	The instructor seems genuinely concerned about your learning.	0	0	0	0.1	0.9	0	4.311111111
10	Please rate the following: Poor (1)(5) Excellent	t 1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	Not Applicable (0)	Average
	Overall, how would you rate the quality of my teaching?	0	0	0	3	7	0	4.7

#### 11 What can the instructor do to improve the course?

A better way to post and submit homework

I liked how you used python to visualize the concept. Maybe use that more in future classes?

Maybe to give us fewer sample questions before exams.

Perhaps teach with powerpoints. I found it hard to follow equations being written on a chalkboard in a large classroom.

I really liked how you gave us specific examples that correspond to each theorem/definition. They really helped me study for the exams and I would've like more examples of similar problems.

The instructor could improve the course by going over the tests and explain each question in class.

maybe use some questions to more closely connect the previous theorem with the new theorem. Could let the students know what chapter would be taught beforehand and let students preview the theorems and examples provided by the books.

#### 12 What where the instructor's weaknesses?

Sometimes I can't hear from the back of the room Personly speaking, I feel like there could be more general guidelines that show how the theorems from different chapters work with each other and the overall structure of what we learned in class.

The instructor can make his class more engaging. Sometimes the transition from chapters to chapters is too quick.

No weaknesses, really. You were always willing to answer questions and spend extra time to go explain specific concepts to me. And I know towards the end you started asking more questions and I appreciate your effort to making this class so much fun.

His voice and teaching got monotonous at times.

No weakness, good!

#### 13 What were the instructor's strengths?

Very clear explainations in class, and class notes are very clear.

Very clear and detailed explanations for class material. And I admire how humble and honest you are. I think it really makes the class so much better and more enjoyable. Thank you so much for making my first semester at Brandeis so fun!

Being patient and helpful.

Responsible and patient. Willing to answer any questions.

Explained the material clearly in very clearly in class, always on point, and followed the syllabus thoroughly. Was extremely helpful outside the classroom.

Excellent examples to support the explanation of theorems and definitions, and great pace in going through materials in each class.

Very clear in explaining materials and notes are very organized and easy to understand. Genuinely care about students.

The instructor is very patient with his students and he is knowledgable on the concepts he teaches.



Dear Professor Youngmin Park:

### Student Opinion of Teaching Questionnaire Results

This form contains evaluation results for ANALYTC GEOMETRY & CALCULUS 1(MATH-0220)-1215.

Attached is a report in PDF format containing your Student Opinion of Teaching Survey results from last term. The report is best viewed and/or printed in color.

The evaluation results are broken down into three distinct categories. The first part of the report shows a breakdown of student responses to the quantitative questions. For each item, the number of students (n) who responded, the average or mean (av.) and standard deviation (dev.) are displayed next to a chart or histogram that shows the percentage of the class who responded to each option for that question. The percentages are above the number on the rating scale which increases from left to right, i.e. the number 1 equals the least favorable rating and the number 4 or 5 (depending on the scale) equals the most favorable rating. The sum of percentages will equal 100%. A red mark is displayed on the chart where the average or mean is located. To calculate how many students responded to each option, multiply the number of students who answered the question by the percentage for that option. For example, if 14 students answered the question and 50% responded to option 3 then 7 students marked option 3 for that item ( $14 \times .50 = 7$ ). The standard deviation is a common measure of dispersion around the mean that may be useful in interpreting the results.

If your school had previously calculated norms, they will be on OMET's website (omet.pitt.edu).

The second part displays individual comments to each question in the open-ended section of the evaluation. All the responses to the first question will be listed together after the first question and then the responses to the next question will be listed together after the next question, and so on.

The final part gives you a profile of the student responses to the quantitative section of the evaluation. This is a chart listing all of the means for the scaled items with a dashed red line connecting the means.

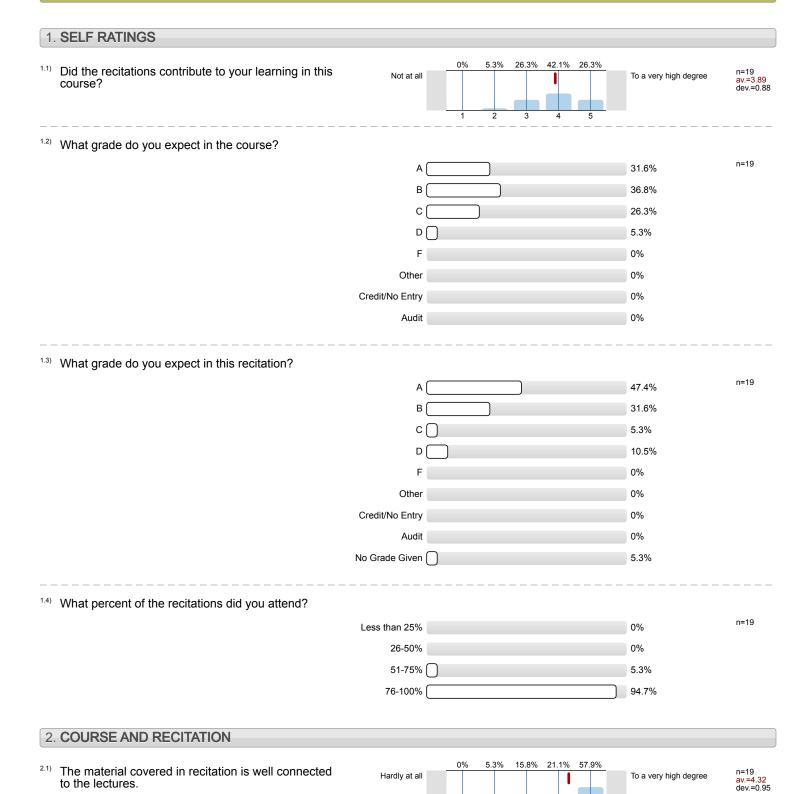
If the number of respondents for any of the scaled items is fewer than seven, please be cautious in interpreting the quantitative results.

Office of Measurement and Evaluation of Teaching (OMET)

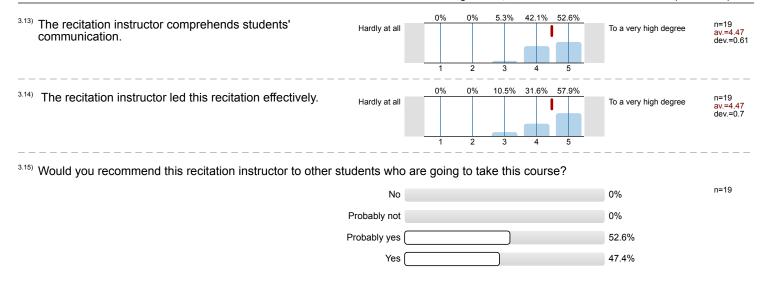
### **Professor Youngmin Park**

ANALYTC GEOMETRY & CALCULUS 1(MATH-0220)-12152151\_UPITT\_MATH\_0220\_SEC1215 Fall 2014 19 RESPONDENTS = 76% OF NUMBER REGISTERED





#### 3. RECITATION INSTRUCTOR TEACHING EVALUATION 15.8% 31.6% 52.6% The recitation instructor was well-prepared for the n=19 av.=4.37 Hardly at all To a very high degree recitations. dev.=0.76 0% 5.6% 38.9% 55.6% n=18 av.=4.5 dev.=0.62 The recitation instructor appeared knowledgeable Hardly at all To a very high degree about course subject matter. 10.5% 42.1% n=19 av.=4.21 The recitation instructor clarified material covered in Hardly at all To a very high degree course lectures. dev.=0.85 2 3 5 0% 21.1% n=19 av.=4.68 dev.=0.58 The recitation instructor showed interest in helping Hardly at all To a very high degree students understand the material. 5.6% 0% 0% 72.2% The recitation instructor returned assignments within n=18 Hardly at all To a very high degree av.=4.67 dev.=0.59 a reasonable amount of time. ab.=1 0% 0% 11.1% 50% 38.9% The recitation instructor was concerned about n=18 Hardly at all To a very high degree av.=4.28 dev.=0.67 students' progress in the course. 0% 0% 5.3% 42.1% The recitation instructor provided helpful answers to n=19 av.=4.47 dev.=0.61 Hardly at all To a very high degree students' questions. 0% 0% 5.6% 22.2% 72.2% The recitation instructor treated students with n=18 Hardly at all To a very high degree av.=4.67 respect. dev.=0.59 5 35.3% 11.8% n=17 av.=4.24 dev.=0.9 The recitation instructor provided constructive Hardly at all To a very high degree feedback on assignments. 2 0% 0% 5.6% 44.4% 50% <sup>3.10)</sup> The recitation instructor maintained an environment n=18 av.=4.44 dev.=0.62 Hardly at all To a very high degree in which students felt comfortable asking questions. ab.=1 0% 12.5% 37.5% The recitation instructor was available for help n=8 Hardly at all To a very high degree av.=4.38 dev.=0.74 outside of the labs. Mark (NA) if you did not seek outside help. ab.=11 0% 0% 5.9% 52.9% 41.2% 3.12) The recitation instructor communicates effectively. n=17 Hardly at all To a very high degree av.=4.35 dev.=0.61 ab.=2



#### 4. RECITATION COMMENTS

- 4.1) Your recitation instructor would like to know if there is something you believe he/she has done especially well in teaching this recitation section.
- A good point of your teaching style is that when a student asks you for help, you respond succinctly and efficiently. Short, sweet, and to the point, your answers don't take a more roundabout approach like some other instructors', and as such you're able to explain how to do a problem with minimal confusion on the student's part.
- Basically everything. Especially giving harder problems/problems with tricks in them that we didn't go over in lecture as example problems in recitation so we could know how to do the harder problems for the test.
- Explaining example problems and explaining answers well when asked questions. Made me understand and clarify a lot of what I was confused about from the class.
- He definitely knows the material and was able to effectively communicate his knowledge to us by asking us what problems we needed help with and showing us the correct ways to do materials that may have been different than what we learned in the actual class.
- He does a great job with addressing students' concerns in regards to homework problems and difficult concepts.
- His own examples of problems helped clear up some concepts discussed.
- I pretty much always felt prepared for the quizzes did a considerable job of going over similar questions that appeared on the quizzes.
- I think he is very good at answering students questions. When I give him a problem to go over, he immediately does that and it helps me a lot.
- The TA does well in answering any and all questions given to him, though there have been times that the students have had to answer when he gets stuck. I love the fact that he posts quiz answers online, as they are very helpful.
- Thoroughly answered all the questions when asked in the recitations and was helpful every time I went.
- You really helped in translating what we couldn't understand from Lam in lecture and your problems done in class were very helpful for the quizzes and the tests.
- You taught Calc 1 better than my lecture professor.
- interacts with the class well
- knowing the material

recitation section.

- 42) Your recitation instructor would also like to know what specific things you believe might be done to improve the teaching of this
- I can't think of anything. He did a great job and was very helpful
- I think he should communicate more with the instructor and prepare book questions to go over in recitation.
- It did not happen often, though he just needs to make sure he just finishes the problem completely. Sometimes (not often) he would stop

near the end of the problem and say, "okay, just simplify from here." Well sometimes I did not know how to simplify so it would be nice if he could have finished.

- Nothing I can think of specifically.
- Professor Lam shows us how to solve problems using specific steps designed to make it easier for students to understand Calculus. Professor Park doesnt really use the same steps as Professor Lam when solving problems on the board which makes it very very confusing.
- Some of his teaching styles were different from Lam in the way that the problems were done. Sometimes the teaching was confusing but still highly helpful.
- Sometimes examples that are worked out in class are done with different methods than the instructor and it can confuse the proper technique and how the professor wants the questions answered.
- Sometimes he would approach questions differently than we were taught in lecture or used different notations which was confusing.
- Sometimes not knowing what we were learning in class and therefore teaching ahead of what we knew made the class confusing
- There were a few times when I thought you could have been a little more organized, but it wasn't that big a deal.
- connecting material with the course more. as in going over concepts taught in lecture while going through a problem
- finding solutions the same way the professor does
- talk to the course instructor about materiel so that both teach the same way and do not confuse students

# **Profile**

Subunit: A&S-MATH LOWER LEVEL Name of the instructor: Professor Youngmin Park,

Name of the course: (Name of the survey)

ANALYTC GEOMETRY & CALCULUS 1(MATH-0220)-1215

Values used in the profile line: Mean

#### 1. SELF RATINGS

1.1) Did the recitations contribute to your learning in this course?



n=19 av.=3.89 md=4.00 dev.=0.88

### 2. COURSE AND RECITATION

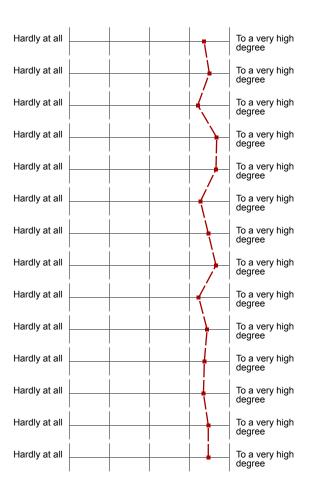
2.1) The material covered in recitation is well connected to the lectures.



n=19 av.=4.32 md=5.00 dev.=0.95

### 3. RECITATION INSTRUCTOR TEACHING EVALUATION

- 3.1) The recitation instructor was well-prepared for the recitations.
- The recitation instructor appeared knowledgeable about course subject matter.
- 3.3) The recitation instructor clarified material covered in course lectures.
- 3.4) The recitation instructor showed interest in helping students understand the material.
- 3.5) The recitation instructor returned assignments within a reasonable amount of time.
- 3.6) The recitation instructor was concerned about students' progress in the course.
- 3.7) The recitation instructor provided helpful answers to students' questions.
- 3.8) The recitation instructor treated students with respect.
- 3.9) The recitation instructor provided constructive feedback on assignments.
- 3.10) The recitation instructor maintained an environment in which students felt comfortable asking questions.
- 3.11) The recitation instructor was available for help outside of the labs. Mark (NA) if you did not seek outside help.
- 3.12) The recitation instructor communicates effectively.
- 3.13) The recitation instructor comprehends students' communication.
- 3.14) The recitation instructor led this recitation effectively.



n=19	av.=4.37 md=5.00 dev.=0.70
n=18	av.=4.50 md=5.00 dev.=0.62
n=19	av.=4.21 md=4.00 dev.=0.8
n=19	av.=4.68 md=5.00 dev.=0.56
n=18	av.=4.67 md=5.00 dev.=0.5
n=18	av.=4.28 md=4.00 dev.=0.6
n=19	av.=4.47 md=5.00 dev.=0.6
n=18	av.=4.67 md=5.00 dev.=0.59
n=17	av.=4.24 md=4.00 dev.=0.90
n=18	av.=4.44 md=4.50 dev.=0.62
n=8	av.=4.38 md=4.50 dev.=0.74
n=17	av.=4.35 md=4.00 dev.=0.6
n=19	av.=4.47 md=5.00 dev.=0.6

n=19

av.=4.47 md=5.00 dev.=0.70



Dear Professor Youngmin Park:

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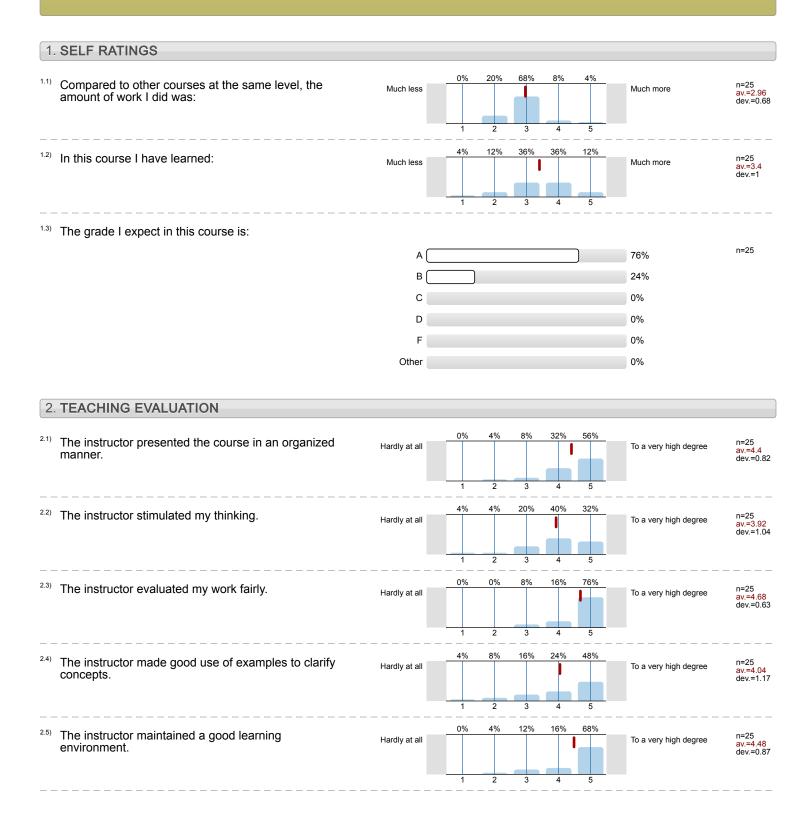
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Office of Measurement and Evaluation of Teaching (OMET)

# **Professor Youngmin Park**



INTRO TO MATRICES & LINEAR ALG(MATH-0280)-10202157\_UPITT\_MATH\_0280\_SEC1020 2157\_12WK 25 RESPONDENTS = 96.15% OF NUMBER REGISTERED



2.6)	The instructor was accessible to students. (Do not answer if no basis to judge)	Hardly at all	1	2	3	4	5	To a very high degree	n=21 av.=4.71 dev.=0.56
2.7)	Express your judgment of the instructor's overall teaching effectiveness:	Ineffective	4%	4%	8%	32%	52%	Excellent	n=25 av.=4.24 dev.=1.05
2.8)	Would you recommend this <u>course</u> to other students?								
		Definitely not						4%	n=25
		Probably not						16%	
		Probably yes						32%	
		Definitely yes						48%	
2.9)	Would you recommend this <u>instructor</u> to other students	 ?				. — — -			
		Definitely not						4%	n=25
		Probably not						8%	
		Probably yes						16%	
		Definitely yes						72%	
3.	MATH TA/TF ADDITIONAL ITEMS								
3.1)	Did you experience difficulty in comprehending your lea	cture instructor's s	poken	langu	age in	class	>		
		No difficulty at all						96%	n=25
	Small a	mount of difficulty						4%	
	N	Moderate difficulty						0%	
		Severe difficulty						0%	
								0%	
3.2)	Did your lecture instructor experience difficulty in comp	rehending the que	estions	that v	vere as	ked b	y studen	ts in class?	
		No difficulty at all						88%	n=25
	Small a	mount of difficulty						12%	
	M	Moderate difficulty						0%	
		Severe difficulty						0%	
3.3)	The lecture instructor's writing on the chalkboard was le	egible.							
		Seldom						4.3%	n=23
		Sometimes						0%	
	A	bout half the time						0%	
		Usually						8.7%	
		Always						87%	

08/13/2015

5.4)	The lecture instructor's attitude toward the subject was enthusiastic.		
	Hardly at all	0%	n=25
	To a small degree	4%	
	To a moderate degree	12%	
	To a considerable degree	16%	
	To a very high degree	68%	
3.5)	Compare to most courses I've taken, the lecture instructor treated students with respect.		
	Much less	0%	n=25
	Somewhat less	4%	
	About the same	24%	
	Somewhat more	24%	
	Much more	48%	
3.6)	The lecture instructor was available for help during his/her office hours.		n=24
	Very seldom	0%	11-24
	Sometimes	0%	
	Frequently	4.2%	
	Almost always	66.7%	
	Cannot judge	29.2%	
3.7)	The lecture instructor arrived for class on time.		
		0%	n=25
	Rarely (less than 20% of the time)	0%	
	Seldom (20-40% of the time)		
	About half the time (40-70% of the time)	0%	
	Usually (70-90% of the time)	4%	
	Over 90% of the time	J 96%	
3.8)	Lecture instructor provided the opportunity for questions.		
	Very seldom	0%	n=24
	About half the time	0%	
	Frequently	20.8%	
	Almost always	75%	
	Cannot judge	4.2%	
3.9)	Helpful answers were given to questions raised in class.		
	· Very seldom ☐	4.2%	n=24
	About half the time	4.2%	
	Frequently	4.2%	
	Almost always	87.5%	
	Cannot judge	0%	
	23		

3.10)	Would	you recommen	d this lecture	e instructor to a	friend taking	this course?
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Not at all	4%	n=25
Unlikely	8%	
Don't know	0%	
Maybe	8%	
Definitely	80%	

#### 4. TEACHING COMMENTS

- 4.1) What were the instructor's major strengths?
- Approachable, gives students lots of opportunities to do well
- Being good with students
- Definitely a great teacher. Really enjoys what he's doing.

Fair grading, simple and clear organization. Followed syllabus very well.

Thank you for a great class. I really enjoyed it.

- Good understanding of the course material and able to answer questions
- He graded quickly, very helpful, nice and very understandable.
- He knew the material so well that when we had questions he was able to explain applications to what we were doing.
- He knew the material well
- He was very passionate about the subject, and seemed to care very much that we learned and did well. Exams were very fair and tested knowledge that he was sure to reinforce in the homeworks, and he was a pleasant person with a generally good demeanor.
- Knew the course material well. Was able to answer questions in a helpful and explicit manner.
- Not exactly sure
- Obviously very knowledgeable about the course material, and genuinely enthusiastic about most concepts. Struck a perfect balance between the "cool" professor who could joke around with students and connect with us more as peers than as students, and the respected professor who you wouldn't even think of trying to take advantage of (arguing back points, requesting assignment extensions, etc).
- Organization of notes.
- Organized material well, clear instruction, very approachable
- Presenting the material in an organized way with direct ties to the book used in the course.
- The instructor knew the course material well enough to simplify his teaching of the material to students.
- Very knowledgeable about the material.
   Eager to answer questions, and assist students.
   Easily accessible.
   Prompt grading of assignments and exams.
- Very understanding, displayed interest in the subject AND explained why it's a useful curriculum
- Was receptive to questions and usually answered them well, provided relevant and useful examples. Also sometimes made real-world connections to whatever we were learning, and I thought those were interesting.
- Youngmin was always willing to/eager to make sure the students understood the material. His office hours were consistently helpful for me. He always took time in lectures to answer any questions about the material being presented. The homework was challenging at times, but central to understanding the concepts presented in class. He is a very fair grader.
- Youngmin's strengths were around the theory of linear algebra as well as his ability to proof certain theorems that consistently rise up in Linear Algebra. His best attribute is his ability to help students during office hours
- how to explain the materials to the students in class and in his office hours.

08/13/2015 Class Climate evaluation Page 4

- 4.2) What were the instructor's major weaknesses?
- Class schedule was changed a few time, but I think that resulted from him not teaching the course much before.
- He ended the class 2 days early
- He writes word for word what is in the book on the board almost as if the class could've been online. I should've not went to class and just struggled through reading the book myself. No out of book examples in his own words were given. This type of teaching is not helpful to me
- I wasn't a fan of when lectures were covered by Ivan, because he was not as good of a teacher.
- It was hard to understand the course material beyond just how to do the problems. Ivan did a really good job of explaining in a visual way what was going on with each type of problem, how to approach the problems, and what exactly we were solving for
- Maybe made the class a bit too easy (not complaining though) but other people might like to be challenged a bit more.
- N/A (2 Counts)
- None (3 Counts)
- Nothing major, he was pretty great
- Some deviation from the textbook would have been nice, if even just a few new examples.
- Sometimes he would make us jump into problems without giving an example first, and that was a bit frustrating.
- Sometimes more time would be spent on easier examples earlier on in the lecture and harder examples would barely have time to be fully explained, prompting me to have to look them up and learn them on my own.
- Spoke very quickly; keeping up with the lecture was difficult at times.
- Stuck to the book a little too much, but then again that usually works. Don't waste time writing theorems on the board- just give us your spin on it and tell us what it means you can do and can't do.
- Teaching the entire class out of the book, word for word.
- The only weakness, I believe, was not being able to show what was physically happening in a certain concept or theorem.
- i don't believe that there was any major weaknesses
- no weekly quizzes

#### 5. COURSE COMMENTS

- 5.1) What aspects of this <u>course</u> were most beneficial to you?
- Abstract thinking of linear algebra
- I enjoyed the in class work i think that helped a lot of people understand the information better
- I had to take it, so probably that.
- It replaces a failing grade I earned
- Learning Linear Algebra.
- Learning about real world applications of linear algebra.
- Learning the mathematical subject of linear algebra. Knowing more than 1 method to approach certain problems.
- None
- Office hours and the group exercises in classes.
- Office hours helped reinforce topics I wasn't clear on.
- Stimulated my interest in mathematics again! Every math class I've taken since high school has been taught in an incredibly stale and boring way, usually encouraging memorization and brute force practice for success. This class, either by nature of the course or the way it was taught, never felt like a hassle at all, and even got me curious enough to click around far too many Wikipedia pages on advanced math topics stemming from Linear Algebra that I never would've thought I'd be able to devote any attention to.

- The ability to have homework be a day or two late. Sometimes, if I have a question or another commitment, it allowed me to spend more time actually doing and understanding the problems
- The lectures, office hours and homework/textbook were all beneficial to understanding the class material.
- This stuff is probably going to be relevant to me later, so it was useful in that way. Not much else I can think of.
- Transformations and Eigenvalues/Eigenvectors.
- Useful for solving large systems of equations
- Using the book to reteach myself.
- Working with matrices.
- how to deal with matrices and their techniques
- 5.2) What suggestions do you have to improve the course?
- A bit more discussion of the applications of some of the material.
- For the engineering sections, have sections on concrete applications of the concepts learned. Concepts by themselves are pretty abstract.
- Having some students come to the board and solve problems.
- I don't think I have any suggestions that would markedly improve the course. I learned a lot and enjoyed it.
- I really liked the concept of group practice problems in class because it gives you a chance to learn from your classmates
- Just try to be more individual in your teaching.
- More examples that aren't in the book, that way the student can look in the book for more examples than what was given in class.
- More examples!
- None (4 Counts)
- Nothing else
- Potentially a little more overlap with or reference to MATH0290 Differential Equations. The entire second half of that course is basically advanced applications of Linear Algebra, so the two courses almost blend into one.
- Reduce the amount of equation sheets to use in exams, it's too easy as is.
- Shadow a couple of professors that are well versed in teaching mathematics and get ideas from them that will help your career tremendously.
- To Improve this course i recommend more in class work problems
- Try to spread out time devoted to concepts and examples at the beginning and end of class equally. Other than that, everything else was fine
- n/a

# **Profile**

Subunit: A&S-MATH LOWER LEVEL Name of the instructor: Professor Youngmin Park,

Name of the course: (Name of the survey)

INTRO TO MATRICES & LINEAR ALG(MATH-0280)-1020

Values used in the profile line: Mean

### 1. SELF RATINGS

1.1) Compared to other courses at the same level, the amount of work I did was:

1.2) In this course I have learned:

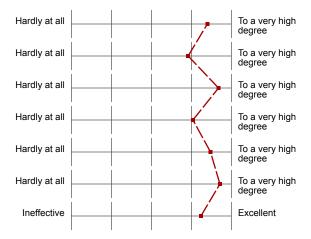


n=25 av.=2.96 md=3.00 dev.=0.68

n=25 av.=3.40 md=3.00 dev.=1.00

### 2. TEACHING EVALUATION

- 2.1) The instructor presented the course in an organized manner.
- <sup>2.2)</sup> The instructor stimulated my thinking.
- 2.3) The instructor evaluated my work fairly.
- 2.4) The instructor made good use of examples to clarify concepts.
- 2.5) The instructor maintained a good learning environment.
- 2.6) The instructor was accessible to students. (Do not answer if no basis to judge)
- 2.7) Express your judgment of the instructor's overall teaching effectiveness:



=25 av.=4.40 md=5.00 dev.=0.82

=25 av.=3.92 md=4.00 dev.=1.04

25 av.=4.68 md=5.00 dev.=0.63

n=25 av.=4.04 md=4.00 dev.=1.17

n=25 av.=4.48 md=5.00 dev.=0.87

n=21 av.=4.71 md=5.00 dev.=0.56

n=25 av.=4.24 md=5.00 dev.=1.05



Dear Professor Youngmin Park:

### Student Opinion of Teaching Questionnaire Results

This form contains survey results for DIFFERENTIAL EQUATIONS(MATH-0290)-1040.

Attached is a report in PDF format containing your Student Opinion of Teaching Survey results from last term. The report is best viewed and/or printed in color.

The evaluation results are broken down into three distinct categories. The first part of the report shows a breakdown of student responses to the quantitative questions. For each item, the number of students (n) who responded, the average or mean (av.) and standard deviation (dev.) are displayed next to a chart or histogram that shows the percentage of the class who responded to each option for that question. The percentages are above the number on the rating scale which increases from left to right, i.e. the number 1 equals the least favorable rating and the number 4 or 5 (depending on the scale) equals the most favorable rating. The sum of percentages will equal 100%. A red mark is displayed on the chart where the average or mean is located. To calculate how many students responded to each option, multiply the number of students who answered the question by the percentage for that option. For example, if 14 students answered the question and 50% responded to option 3 then 7 students marked option 3 for that item ( $14 \times .50 = 7$ ). The standard deviation is a common measure of dispersion around the mean that may be useful in interpreting the results.

The second part displays individual comments to each question in the open-ended section of the evaluation. All the responses to the first question will be listed together after the first question and then the responses to the next question will be listed together after the next question, and so on.

The final part gives you a profile of the student responses to the quantitative section of the evaluation. This is a chart listing all of the means for the scaled items with a dashed red line connecting the means.

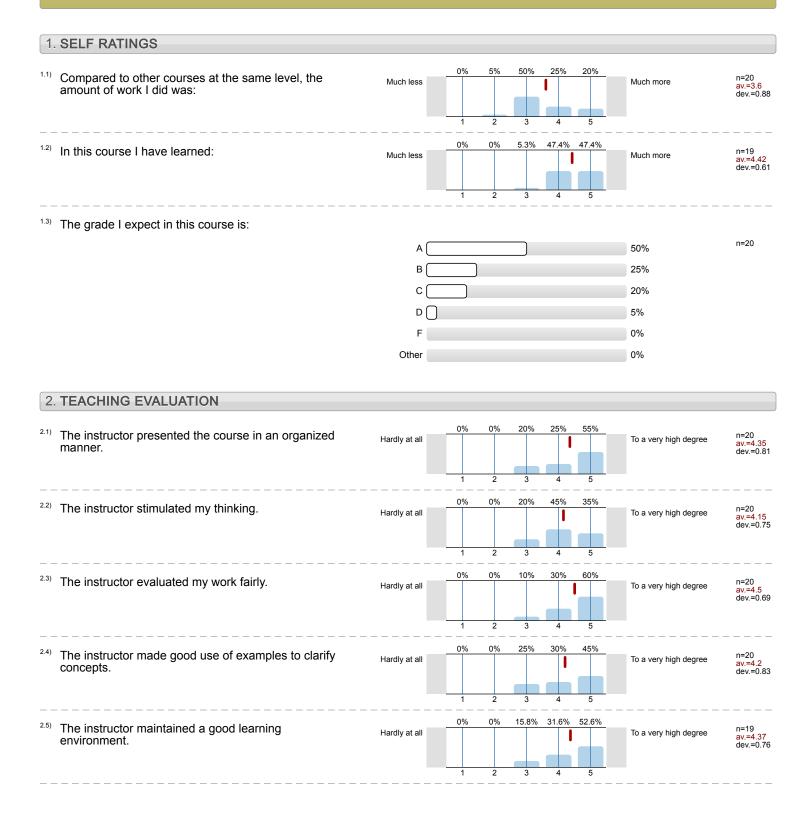
If the number of respondents for any of the scaled items is fewer than seven, please be cautious in interpreting the quantitative results.

Office of Measurement and Evaluation of Teaching (OMET)

# **Professor Youngmin Park**



DIFFERENTIAL EQUATIONS(MATH-0290)-10402167\_UPITT\_MATH\_0290\_SEC1040 2167\_12WK 20 RESPONDENTS = 86.96% OF NUMBER REGISTERED



2.6)	The instructor was accessible to students. (Do not answer if no basis to judge)	Hardly at all	0%	2	3	31.6%	57.9%	To a very high degree	n=19 av.=4.47 dev.=0.7
2.7)	Express your judgment of the instructor's <b>overall</b> teaching effectiveness:	Ineffective	0%	2	15%	30%	55%	Excellent	n=20 av.=4.4 dev.=0.75
2.8)	Would you recommend this <u>course</u> to other students?								
		Probably not						20%	n=20
		Probably yes						55%	
		Definitely yes						25%	
2.9)	Would you recommend this <u>instructor</u> to other students	 6?							
		Probably yes						25%	n=20
		Definitely yes					)	75%	
3.	MATH TA/TF ADDITIONAL ITEMS								
3.1)	Did you experience difficulty in comprehending your le	cture instructor's	spoken l	angu	age in	class	?		
		No difficulty at all						100%	n=20
	Small a	amount of difficulty						0%	
	ı	Moderate difficulty						0%	
		Severe difficulty						0%	
								0%	
3.2)	Did your lecture instructor experience difficulty in comp	orehending the qu	estions	that w	vere a	sked b	y studer	nts in class?	
		No difficulty at all						90%	n=20
	Small a	amount of difficulty						10%	
	ı	Moderate difficulty						0%	
		Severe difficulty						0%	
3.3)	The lecture instructor's writing on the chalkboard was I	egible.							
		Seldom						0%	n=20
		Sometimes						0%	
		About half the time						0%	
		Usually						40%	
		Always						60%	

3.4)	The lecture instructor's attitude toward the subject was enthusiastic.		
	Hardly at all	0%	n=20
	To a small degree	0%	
	To a moderate degree	15%	
	To a considerable degree	55%	
	To a very high degree	30%	
3.5)	Compare to most courses I've taken, the lecture instructor treated students with respect.		
	Much less	0%	n=20
	Somewhat less	0%	
	About the same	25%	
	Somewhat more	20%	
	Much more	55%	
3.6)	The lecture instructor was available for help during his/her office hours.		
	Very seldom	0%	n=20
	Sometimes	5%	
	Frequently	15%	
	Almost always	60%	
	Cannot judge	20%	
3.7)	The lecture instructor arrived for class on time.		
	Rarely (less than 20% of the time)	0%	n=20
	Seldom (20-40% of the time)	0%	
	About half the time (40-70% of the time)	0%	
	Usually (70-90% of the time)	5%	
	Over 90% of the time	95%	
3.8)	Lecture instructor provided the opportunity for questions.		
	Very seldom	0%	n=20
	About half the time	5%	
	Frequently	25%	
	Almost always	60%	
	Cannot judge	10%	
3.9)	Helpful answers were given to questions raised in class.		
	Very seldom	0%	n=20
	About half the time	5%	
	Frequently	20%	
	Almost always	65%	
	Cannot judge	10%	

3.10) Would you recommend this lecture instructor to a friend taking this course?

Not at all	0% n=20
Unlikely	0%
Don't know	5%
Maybe	20%
Definitely	75%

#### 4. TEACHING COMMENTS

- 4.1) What were the instructor's major strengths?
- Always prepared notes ahead of time and was able to cover the course material effectively. Additionally, he was able to answer any questions raised about the subject.
- Clear, effective explanations

Respectful and helpful

Worked with students who had previously planned events

Provides an opportunity for bonus points by putting together a presentation on a related topic, which gave insight into mathematical applications related to the information taught in class

- Explain
- He is very smart, kind and we'll spoken.
- He was able to explain complicated concepts in very easy to understand terms.
- He was really easy to understand, he conveyed the material to us really well, and was always welcoming at office hours and if you couldn't make it to office hours he was very accommodating. He definitely cares about his students and wants us all to succeed. This is my third time taking this course and this is the first time I ever felt like I could actually understand the material and that it wasn't out of reach of my comprehension.
- He was super chill.
- He was very knowledgeable of the topics. If you try, it is also easy to do well in the class.
- He was very well organized and his examples helped me understand the subject matter.
- He was very willing to help and you can tell he cares about the success of his class. He wants to ensure students learn and have the opportunity to do well. He answers any and all questions and makes himself available if help is needed. He gives opportunity for extra credit and a chance to improve.
- His accessibility and flexibility to meet with and help students
- Instructors lectures were easy to comprehend and understand because he is good at speaking clearly and loudly.
- Know about the materials
- Problem solving, answering questions, helping students raise grades
- Thorough explanations
- Very clear handwriting and examples. He also focused on material that would be on the tests, thus cutting down on useless information.
- Very concise, taught the material thoroughly, and graded fairly. Thanks for a good summer course.
- Very high knowledge of the subject. He also presented very valuable example that coincided with the section of the course we were learning. He seemed to care about whether his students were learning the subjects and truly cared to answer their questions in a clear and concise way.
- Youngmin had a good understanding of the students' perspective as graduate student. Many instructors seem to lose that understanding as they get farther from their college years
- class was organized well. Most of the examples applied to HW without making it too easy. Very willing to answer questions. Very accommodating.

08/12/2016 Class Climate evaluation Page 4

- 4.2) What were the instructor's major weaknesses?
- Arithmetic errors
- At times it was too fast paced as I sometimes need more time to comprehend a subject
- At times, he worked a bit faster than I would have liked and could have slowed down.
- Didn't notice any
- He did not get the full class attention all the time.
- He did tend to move fairly fast through class, though that might have been because of the amount of material that needed to be covered.
- He would occasionally move at a pace that became hard to follow, but he left notes on the board long enough for students to ask questions or understand the example presented.
- He would sometimes move too quickly for me to take good notes.
- I can't really think of any, I mean the class as a whole has been really fair!
- Most of the material covered in the reviews were not on the exams.
- N/A
- None
- None.
- Nothing
- Sometimes moved a little fast, but was always able to clarify if needed. Writing was occasionally a little small and hard to see from the back of the class, but still legible most of the time.
- The class could be more engaging. He simply goes through lecture and examples without pausing. It is sometimes difficult to follow lecture since he flies through the concepts and examples. It makes it hard to understand the subject if he does that. Sometimes he lets us try an example before he goes through the answers and I wish he would do that more. I found that effective to my learning.
- explain
- n/a
- sometimes notation was inconsistent

#### 5. COURSE COMMENTS

- 5.1) What aspects of this <u>course</u> were most beneficial to you?
- All of it, he presented the class in a very practical matter.
- Being able to have one on one time with my instructor to go over questions and being able to email him questions and receiving beneficial answers in return and his willingness to help.
- He was able to cover the material much more clearly than my previous professor so I feel like I learned much more this time around.
- I need it for engineering
- I think I learned more than I thought I would. The homework problems helped and the exams were doable.
- I think taking written problems to turn in was highly beneficial.
- Knowledge
- Learning about how differential equations bridges different math concepts and classes.
- None.
- The examples that went along with the course were very beneficial helped to learn the content presented. I feel they were the best problems to assist with the main concepts
- The examples.

- The lectures and homeworks really helped me understand the concepts.
- The math covered that is needed for engineers.
- The teacher was very well spoken and did a great job explaining.
- Very beneficial to my major and has helped prepare me for higher level engineering classes.
- Youngmin was very approachable and made it much easier to ask questions or for help
- almost everything
- n/a
- the in class examples

-----

- 5.2) What suggestions do you have to improve the course?
- Do more in-class interactive examples
- Every single Differential Equations course should be taught with Youngmin's guidance. He's relatable to students and real, he tells you when you do and don't need to know things without straight up telling you what is on the exam. And he makes the dumb things fun, we had a class of presentations for extra credit and we won pottery for presumably teaching the students the most about our topic. It just made it fun, funny, and different. It wasn't overbearing and you weren't screwed if you never did the homework because it didn't need to be turned in and then at the end of the semester you didn't know anything. Homework was always done and in on time and he was accommodating to student with vacations/excuses.
- I stated them already. I think it would be good to make the class more engaging. Otherwise I thought the class overall was good and the professor made an effort to make sure students were learning and doing well by offering help and any extra credit.
- I would suggest possibly providing practice test from other times this class was taught. Some uncertainty on what exactly to expect from the test.
- Less focus on physics concepts early on.
- Make sure you aren't moving too quickly.
- More time on exams.
- More young instructors that understand the student perspective. I have had friends really struggle with other instructors for this subject
- No
- None
- None really, I believe the material was covered effectively and therefore the course doesn't require much improvement.
- Not sure.
- Nothing. It was perfect.
- Possible offer this course over a longer period of time though this is probably limited to the university's constraints.
- Possibly homework solutions being made available after each homework was turned in.
- Provide tons of practice exams with solutions please.
- Talk a little louder.
- in general (not this section): get rid of the departmental final. Don't recommend getting the matlab supplement when it is not relevant. revise calc 2 material so that it mimics the notation used in this course to remove unnecessary confusion
- more in class examples time allowed

# Profile

Subunit: A&S-MATH LOWER LEVEL Name of the instructor: Professor Youngmin Park,

Name of the course: (Name of the survey)

DIFFERENTIAL EQUATIONS(MATH-0290)-1040

Values used in the profile line: Mean

### 1. SELF RATINGS

1.1) Compared to other courses at the same level, the amount of work I did was:

Much less

Much more

n=20 av.=3.60 md=3.00 dev.=0.88

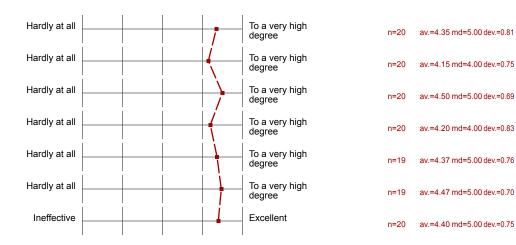
1.2) In this course I have learned:

Much more

n=19 av.=4.42 md=4.00 dev.=0.61

### 2. TEACHING EVALUATION

- 2.1) The instructor presented the course in an organized manner.
- <sup>2.2)</sup> The instructor stimulated my thinking.
- 2.3) The instructor evaluated my work fairly.
- 2.4) The instructor made good use of examples to clarify concepts.
- 2.5) The instructor maintained a good learning environment.
- 2.6) The instructor was accessible to students. (Do not answer if no basis to judge)
- 2.7) Express your judgment of the instructor's overall teaching effectiveness:





# **Summer 2017 - Teaching Survey Report for Youngmin Park**

### MATH 0290 - DIFFERENTIAL EQUATIONS - 1040 - Lecture

### 2177 - Teaching Survey Summer 2

Total Enrollment 14 Responses Received 4 Response Rate 28.57%

#### **Subject Details**

Name MATH 0290 - DIFFERENTIAL EQUATIONS - 1040 - Lecture

DEPARTMENT\_CD **MATH** CAMPUS\_CD PIT SCHOOL\_CD **ARTSC** CLASS\_NBR 16661 COURSE\_NUMBER 290 SECTION\_NUMBER 1040 TERM\_NUMBER 2177 COURSE\_TYPE Lecture

**CLASS\_ATTRIBUTE** 

**ENROLLED\_STUDENTS** 14

First Name Youngmin
Last Name Park

RANK\_DESCR Teaching Fellow

**TENURE** NT

#### **Report Comments**

Table of Contents:

Instructor and Course Survey Results:

- Numerical
- Comments
- Additional School or Department Questions (if applicable)
- Additional QP Questions (if applicable)

Creation Date Tue, Aug 22, 2017



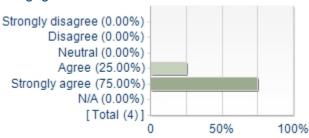
# **Arts and Sciences Questions**

# **Summary: 5-point scale - Strongly Disagree to Strongly Agree**

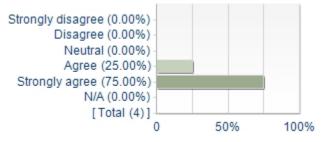
		Results			
Question	Mean	Response Count	Standard Deviation		
The instructor created an atmosphere that kept me engaged in course content.	4.75	4	0.50		
The instructor was prepared for class.	4.75	4	0.50		
The instructor treated students with respect.	5.00	4	0.00		
The instructor was available to me (in-person, electronically, or both).	5.00	4	0.00		
The instructor evaluated my work fairly.	5.00	4	0.00		
The instructor provided feedback that was helpful to me.	4.75	4	0.50		
I learned a lot from this course. If there is no basis to judge or not applicable, answer N/A.	4.75	4	0.50		
Overall	4.86	-	0.36		

### **Detailed Responses**

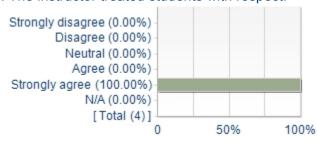
1. The instructor created an atmosphere that kept me engaged in course content.



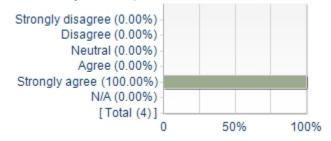
2. The instructor was prepared for class.



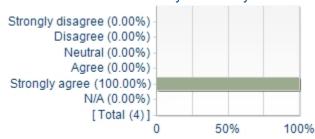
3. The instructor treated students with respect.



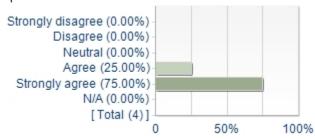
4. The instructor was available to me (in-person, electronically, or both).



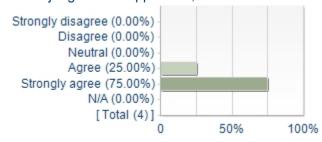
5. The instructor evaluated my work fairly.



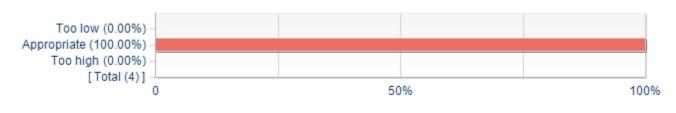
6. The instructor provided feedback that was helpful to me.



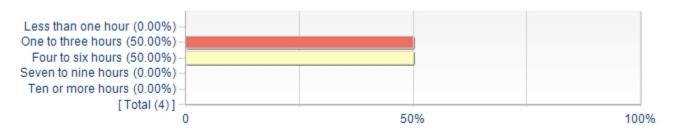
7. I learned a lot from this course. If there is no basis to judge or not applicable, answer N/A.



### The standards the instructor set for me were:



# How many hours per week did you usually spend working on this course outside of classroom time?



### **Comments**

### What did you like best about how the course was taught?

### Comments

Mr. Park focused on the stuff that would be applicable to quizzes and tests. He also did a great job of working through difficult questions by taking "bite–size" steps.

Very straightforward. Clear expectations laid out for students

### If you were teaching this course, what would you do differently?

#### Comments

I would maybe spend a little bit more time on how these concepts relate to real life situations and real life applications I wouldn't do anything differently.