Math 3440: Differential Equations Fall 2021

MW 2:30–3:45pm Zoom: 995 2187 5983, password 3440

Instructor: Youngmin Park

E-mail: ympark1988@gmail.comOffice Hours: We 1:30-2:30pm, Fri 4-5pm

Course Description This course presents an introduction to the theory of differential equations from an applied perspective. Topics include solution methods to linear and nonlinear ordinary differential equations (ODEs), and qualitative studies of systems of ODEs.

Textbook (Required) Polking, Boggess, Arnold *Differential Equations with Boundary Value Problems*, second edition. ISBN 9780131862364. Download here https://drive.google.com/file/d/1hriC1Ds-aZj7MTwt6bMBYv-fpwuEi26w/view?usp=sharing

Grading, quizzes, and midterms We will have weekly quizzes and two midterms. All quiz, midterm, and final grades will be posted to courseweb. Notify me as early as possible if you will miss a quiz or midterm. If you notify me after the quiz or exam date you will not be allowed to make up quizzes or exams without a valid medical reason. Since unexpected events happen, I will drop 3 of your lowest quiz scores.

Your course grade is structured as follows:

• Two midterm exams: 30% (15% each)

• Final exam: 40%

• Quizzes: 30%

See the class schedule for the dates of the quizzes and exams. There will be no written homework assignments.

Excellent performance on midterm 1 and/or midterm 2 will grant exemption from solving the corresponding problems on the final. For example, receiving a high score on midterm 1 will allow skipping problems related to quizzes 1-4 with no penalty (problems and corresponding sections will be clearly labeled). Cutoffs for exemption will be determined after grading each midterm.

Each midterm and quiz is closed-book, closed-notes.

Disability If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and the Student Accessibility Services (SAS), 520 UMSU University Centre 204-474-7423 as early as possible in the term. See https://umanitoba.ca/student-supports/accessibility.

Academic Integrity Cheating/plagiarism will not be tolerated. Students suspected of violating the University of Manitoba Policy on Academic Integrity

will incur a minimum sanction of a zero score for the quiz, exam or paper in question. Additional sanctions may be imposed, depending on the severity of the infraction.

Semester Schedule

WEEK 1:

Practice problems: 1.1: 1,3; 2.1: 3,13,15; 2.2: 9,11,17,23

Wed 8 Sept: 1.1 Differential equation models, 2.1 Differential equations and solutions. 2.2 Solutions to separable equations

WEEK 2:

Mon 13 Sept: 2.3 models of motion, 2.4 Linear equations

Wed 15 Sept: 2.5 mixing problems, 2.7 Existence and uniqueness of solutions

WEEK 3:

Practice problems: 2.3: 8 (you may use section 2.3 equations 3.5-3.7),11; 2.4: 3,15,39; 2.5: 5;2.7: 3,7

Mon 20 Sept: 3.1 Modeling population growth, 3.3 Personal finance, 3.4 Electrical circuits

Wed 22 Sept: Quiz 1 on sections 2.2, 2.3, 2.4, 2.5, 2.7, 4.1 Second order equations

WEEK 4:

Practice problems: 3.1: 10,13; 3.3: 3,5; 3.4: 4,12,21

Mon 27 Sept: 4.2 Second order equations and systems, 4.3 Linear, homogeneous equations with constant coefficients, 4.4 Harmonic motion

Wed 29 Sept: Quiz 2 on sections 3.1, 3.3, 3.4, 4.5 Method of undetermined coefficients

WEEK 5:

Practice problems: 4.3: 1,10,18; 4.4: 7,11,13,20(a); 4.5: 1,2,19,21

Mon 4 Oct: 4.6 Variation of parameters, 4.7 Forced harmonic motion

Wed 6 Oct: Quiz 3 on sections 4.3, 4.4, 4.5

WEEK 6:

Mon 11 Oct: Holiday, no class. Wed 13 Oct: Review day

WEEK 7:

Mon 18 Oct: Midterm 1 on topics from quizzes 1–3 (sections 1.1–4.5)

Wed 20 Oct: 5.1 Laplace transform, 5.2 Properties of the Laplace transform

WEEK 8:

Practice problems: 4.6: 3,5,7; 4.7: 3

Mon 25 Oct: 5.3 Inverse Laplace transform 5.4 Solving ODEs with the Laplace transform, 5.5 Discontinuous forcing terms, 5.6 Delta function, 5.7 Convolutions Wed 27 Oct: Quiz 4 on sections 4.6, 4.7, Chapter 7 matrix algebra boot camp

WEEK 9:

Mon 1 Nov: 8.1 Introduction to systems, 8.2 Geometric interpretation of

systems.

Wed 3 Nov: Canceled

WEEK 10:

Mon 8 Nov: No class, Fall Break.Wed 10 Nov: No class, Fall Break.

WEEK 11:

Practice problems: 5.1: 5,8,25,29; 5.2: 6,7; 5.3: 11,19; 5.4: 1,19,21; 5.5: 6,10,27;

5.6: 3,5; 5.7: 7,9

Mon 15 Nov: 9.1 Linear systems of constant coefficients

Wed 17 Nov Quiz 5 on sections 5.1, 5.2, 5.3, 5.4

WEEK 12:

Mon 22 Nov: Midterm 2 review

Wed 24 Nov: Midterm 2 on topics from quizzes 4-6 (sections 4.6–4.7, 5.1–5.7),

WEEK 13:

Practice problems: 8.1: 1,3,11,13; 8.2: 21,23,25; 8.3: 3,5; 9.1: 1,16,17; 9.2:

1,7,17; 9.3: 16,20

Mon 29 Nov: 9.2 Planar systems, 9.3 Phase plane portraits

Wed 1 Dec: Quiz 6 on sections 8.1, 8.2, 8.3, 9.1, 9.2, 9.3

WEEK 14:

Mon 6 Dec: Review day 1 Wed 8 Dec: Review day 2

Youngmin Park Teaching Evaluations

1 Summary of Selected Teaching Evaluations

Term	School	Course	Type	Evaluation
Spring 2021	Brandeis	Calculus 3	Lecture	4.53 /5
Spring 2020	Brandeis	Linear Algebra	Lecture	4.7/5
Summer 2017	U Pitt	Differential Equations	Lecture	4.86/5
Summer 2016	U Pitt	Differential Equations	Lecture	4.4/5
Summer 2015	U Pitt	Linear Algebra	Lecture	4.24/5
Fall 2014	U Pitt	Calculus 1	Recitation	4.5/5

Course Evaluation Instructor Detail Report for term 1211, MATH 20A-2 MULTI-VARIABLE CALCULUS (Youngmin Park)

Instructor: Youngmin Park

Course: MATH 20A-2 MULTI-VARIABLE CALCULUS

Term: 1211

Home Department: Mathematics

Raters	Students
Responded	40
Invited	48
Response Ratio	83.3%

Key: # = Total Responses; 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree; N/A = Not Applicable

Course Structure and Grading

General Structure

	#	1	2	3	4	5	N/A	Median	Mean	SD
The course syllabus was comprehensive, clear, and accurate.	40	0	0	1	11	28	0	5.00	4.68	0.53
The learning goals were clearly stated in the syllabus.	40	0	0	1	9	30	0	5.00	4.73	0.51
Classes started and ended on time.	40	0	0	1	9	30	0	5.00	4.73	0.51

Grading

	#	1	2	3	4	5	N/A	Median	Mean	SD
Content of tests and assignments was consistent with content of lectures and/or reading.	40	0	2	0	15	23	0	5.00	4.48	0.75
Assignments and/or exams were returned promptly.	40	0	0	0	10	30	0	5.00	4.75	0.44
The grading policies were clear and consistently followed.	40	0	0	2	10	28	0	5.00	4.65	0.58
The graded assignments allowed me to demonstrate what I learned in the course.	40	0	1	2	9	28	0	5.00	4.60	0.71

Content and Workload

	#	1	2	3	4	5	N/A	Median	Mean	SD
The content covered in this course was challenging.	40	0	0	4	17	19	0	4.00	4.38	0.67
This course requires a lot of work.	40	0	0	4	17	19	0	4.00	4.38	0.67

Student Responsibilities

	#	1	2	3	4	5	N/A	Median	Mean	SD
I completed the course readings.	39	0	0	3	13	20	3	5.00	4.47	0.65
I kept up with work as it was assigned.	40	0	2	1	9	28	0	5.00	4.58	0.78

Instructor Responsibilities and Skills

	#	1	2	3	4	5	N/A	Median	Mean	SD
The instructor was effective as a lecturer and/or class leader.	40	0	1	2	14	23	0	5.00	4.48	0.72
The instructor's presentations were clear and organized.	38	0	2	0	13	23	0	5.00	4.50	0.76
The instructor stimulated interest in the subject.	40	0	1	4	15	20	0	4.50	4.35	0.77

Responsiveness of the Instructor

	#	1	2	3	4	5	N/A	Median	Mean	SD
The instructor was available and helpful to students outside the class.	40	0	0	0	13	25	2	5.00	4.66	0.48
The instructor respected students' ideas.	40	0	0	1	14	25	0	5.00	4.60	0.55
The instructor was concerned about student learning and development.	40	0	0	0	12	28	0	5.00	4.70	0.46
I received feedback that helped me see ways in which I could improve my learning and understanding.	40	0	1	3	13	23	0	5.00	4.45	0.75

Overall Instructor Rating

	Cours	e Avera	ge
Question	Response Count	Mean	Median
The instructor was effective as a lecturer and/or class leader.	40	4.48	5.00
The instructor's presentations were clear and organized.	38	4.50	5.00
The instructor stimulated interest in the subject.	40	4.35	4.50
The instructor was available and helpful to students outside the class.	38	4.66	5.00
The instructor respected students' ideas.	40	4.60	5.00
The instructor was concerned about student learning and development.	40	4.70	5.00
I received feedback that helped me see ways in which I could improve my learning and understanding.	40	4.45	5.00
Overall	-	4.53	-

Contribution to Learning

	#	1	2	3	4	5	N/A	Median	Mean	SD
The stated learning goals for the course were met.	40	0	0	4	14	22	0	5.00	4.45	0.68
This course improved my writing ability.	40	1	2	7	3	11	16	4.00	3.88	1.23
This course improved my oral communication skills.	40	1	2	5	4	12	16	4.50	4.00	1.22
This course improved my quantitative skills.	40	0	0	0	10	30	0	5.00	4.75	0.44
This course helped me develop my creative abilities.	40	0	0	5	10	13	12	4.00	4.29	0.76
This course helped me to analyze, interpret and synthesize information.	40	0	0	2	17	20	1	5.00	4.46	0.60
This course helped me to reason better and to think more critically about its subject matter.	40	0	0	2	13	22	3	5.00	4.54	0.61
This course helped me to consider alternative perspectives on complex issues.	40	0	0	0	10	21	9	5.00	4.68	0.48

Overall Quality of the Course

	#	1	2	3	4	5	N/A	Median	Mean	SD
The overall quality of this course was excellent.	40	0	2	4	11	23	0	5.00	4.38	0.87

Student Demographics

Your class standing?

#	First Year	Sophomore	Junior	Senior	Master's	Doctoral
40	20	15	3	2	0	0

What is your school of major?

#	SCI	SocSCI	HUM	ART	Undecided
40	24	4	1	1	10

Why did you choose this course?

#	University req.	Major req.	Minor req.	Interest
40	2	25	1	12

Course and Instructor Comments

Please identify those aspects of the course you found most useful or valuable for learning.

Comments

I think the lecture and practice problems are really useful for learning.

- 1. The use of digital notes during class. The handwritten digital notes are very clear and promotes understanding
- 2. The homework problems help me gain mastery of the math content.

Analyzing examples to better illustrate the knowledge.

Quantitative skills

Muti-variable calculus is worth to learn.

I found most useful the fact that lectures were uploaded almost immediately and the long breaks and how the professor provided an unjudgemental space to ask questions. Such a space, and the availability to make office hour appointments to ask questions for confusion made it easy to and the previous factors I believe were what I believe is what allowed for a very fun class.

The recorded lectures and notes that were posted after each class session were helpful in reviewing. I didnt use them much at all but certainly see the usefulness.

You were a fantastic teacher. Not only were you extremely fair and understanding with all of your grading policies (which helped remove some level of grade–related stress from our plates), but your lectures were all extremely well planned out. As you went through the curriculum, you were extremely available for any questions, even encouraging interruptions.

He is available to students for any questions and very considerable. It was so nice that he doesn't count grades against students but rather excuses some of them to help us do better overall.

This course able to provide me the skill of multi variable calculus, and these material is going to be used in many of my class I am currently enrolled in.

- Analysis of line integrals for a path through a vector field
- integration in multiple coordinate systems

The copious examples in class along with extremely relevant homework. All the work I did for this class had a purpose.

Questions to focus on before an exam.

the lecture was zoom recorded

Using the professor's office hours to help with the most difficult parts of the homework problems was very useful for learning

I think that this course challenged me because it helped me get used to the rigor of college math.

The notes of Professor Park are very clear and useful for the review.

Practice problems and homework. Having formula sheets and practice problems for exams. Going over examples in class. The way he re–evaluated the way the course works after the first course was admirable and I felt a lot better about how it was going after.

I think the instructor did a good job at explaining the course material and significance behind it. I found going through the examples in–class from the book helped a lot with the homework and the exams.

NA

all the info learned in class was very informative and I can now see their applications into the real world

The practice problems are very helpful.

the math concepts and tools

Learning these topics will be crucial for my future courses/career in physics

Having full disclosure of curves and grading was helpful for gauging the effectiveness of studying. Flexibility in assignment due dates and removing bad grades were also helpful for mitigating singular bad scores.

What suggestions would you make to the instructor Youngmin Park for improving the course?

Comments

I hope the difficulty of exams can be consistent with the midterm one because I think the questions in midterm one is more interesting. Maybe the difficulty of homework can be improved a little so the difficulty of the exam will not be surprising.

I hope that course pace can be a little quicker so that we can fully cover the multi-variable calculus content.

Lowereing the difficulty of the exams since average is very low.

The assignments are way harder than the examples went over in class and some topics are not explained clearly. The lectures go over one topic only once without reviewing old ones.

I select disagree for the quality of the course because Park mistakenly designed our first midterm be too hard. And that impact negatively on my faith in learning math.

No suggestions:)

Give some feedback on the exams and homeworks on what you did wrong so the student can improve. Perhaps he did somewhere and I did not see it, in that case nevermind.

I honestly can't think of anything.

Overall is really good, I really like the teaching style professor provides. One suggestion for improvement is sort of providing a bit more opportunity for office hour(more office hours) because some of the materials is really hard and it really need explanation from professor.

- Please take the time to prepare a lesson plan that is different than what the textbook says!
- Do a weekly review session outside of class; or a recitation session for the class.
- Cover less material that was relevant to the first trimester of the class. Most students need this class to learn about Greene and Stokes theorem and solve partial differential equations. The timing for this semester did not permit that and I don't feel I got as much out of multi as I expected.
- try changing the class structure to encourage student participation in solving problems. This will be crucial because you can directly work with students and see how they interpret the problem and work through a mistake that might be common to the material.
- assign more physics/engineering themed problems
- please make TA's have a similar role to TAs in physics and other science classes where they are more available to students and involved in the classroom.

Allow students to think of the problem before writing the solution.

if we could please have TAs, and go ov4r problems more relevant ti the tests

Teaching directly from the textbook is dull and decreasing your reliance on it will improve student receptiveness to your teaching. Additionally, as you have already acknowledged, the first midterm was excessively hard, so watching out for that in order to prevent it from happening in the future would be a good idea.

TAs would have helped give more support to students and different strategies for solving and thinking about problems.

The homework pictures Professor Park took were a little bit dark and not easy to recognize the texts. I hope in the future he can post the scans of homework on Latte.

Doing what you did after the first exam for the whole course. After the changes the course was almost perfect. Still lots of practice problems for the exams, especially for the non–cumulative final.

I think the structure of the course was overall very good, especially after the first midterm, and does not need significant improvement.

NA

add more activities to spark interest of students

well done already.

maybe you can add some problems that are not from textbooks in class

I always love the format of your notes (concept and then an example).

Sometimes, topics were introduced with minimal background, so we understood how to do the problems but not exactly why they are important.

Spring 2021 Instructor Course Evaluation Report for MATH 20A-2 MULTI-VARIABLE CALCULUS, Youngmin Park

If you feel that the instructor Youngmin Park should be considered for a teaching award, please explain why.

Comments

The instructor is very dedicated in his teaching. He explained the math contents concisely and clearly. He offered a lot help after class.

no

Youngmin Park definitely deserves a teaching award. From his syllabus, to his lectures, and his overall positive attitude towards learning, he creates a challenging and engaging mathematic environment.

Professor Park is good at drawing pictures to help us visualize the problem, and his lesson is quite clear and easy to follow.

The way that he took responsibility for our poor performance the first exam and made improvements showed that he really cared about our learning and I never had that experience before. The improvements worked and I was able to enjoy the course and learn a lot more after the changes.

NA

He is patient and experienced

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.



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



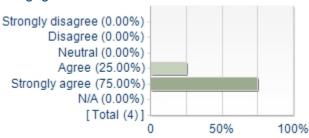
Arts and Sciences Questions

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

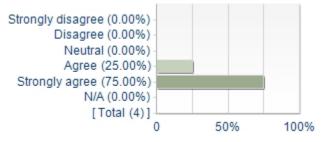
Question		Results			
		Response Count	Standard Deviation		
The instructor created an atmosphere that kept me engaged in course content.	4.75	4	0.50		
The instructor was prepared for class.	4.75	4	0.50		
The instructor treated students with respect.	5.00	4	0.00		
The instructor was available to me (in-person, 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

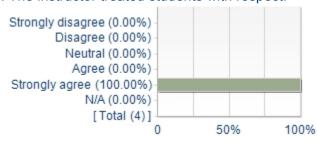
1. The instructor created an atmosphere that kept me engaged in course content.



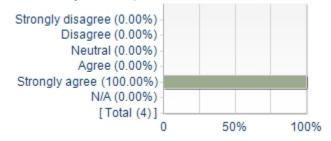
2. The instructor was prepared for class.



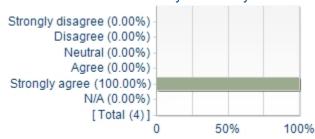
3. The instructor treated students with respect.



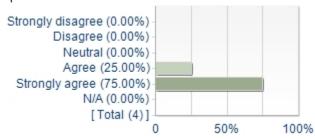
4. The instructor was available to me (in-person, electronically, or both).



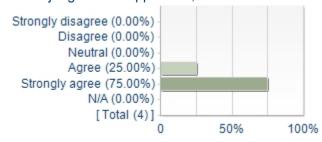
5. The instructor evaluated my work fairly.



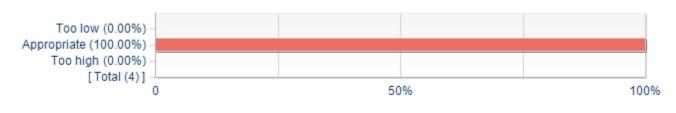
6. The instructor provided feedback that was helpful to me.



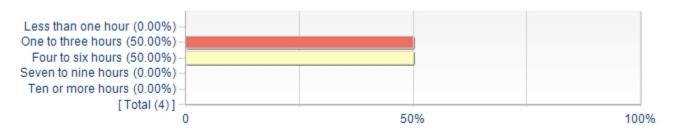
7. I learned a lot from this course. If there is no basis to judge or not applicable, answer N/A.



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.



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.

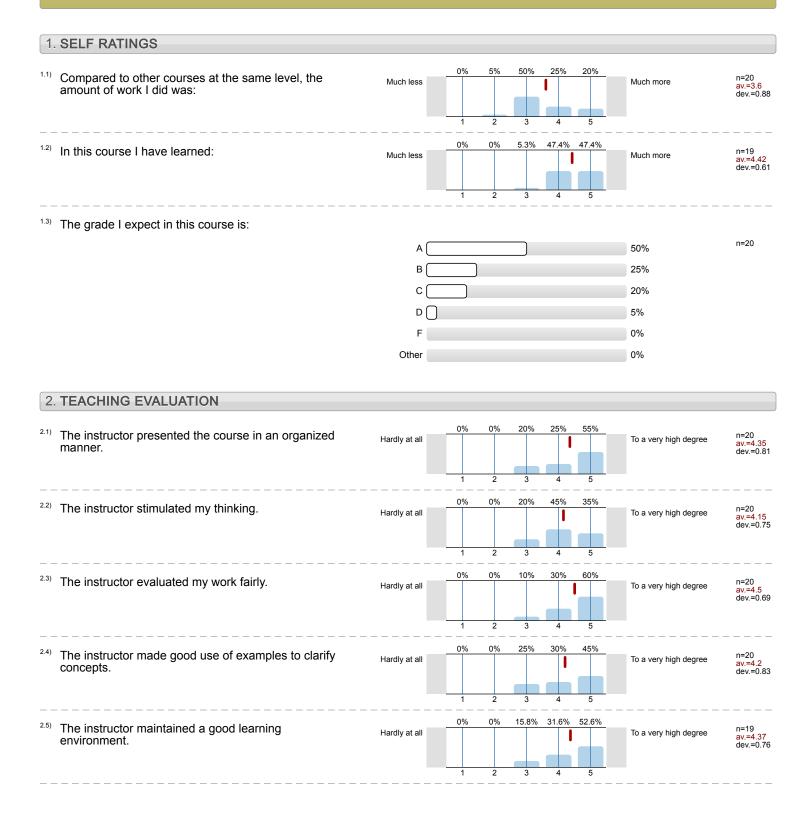
If the number of respondents for any of the scaled items is fewer than seven, please be cautious in interpreting the quantitative results.

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 overall 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 instructor 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

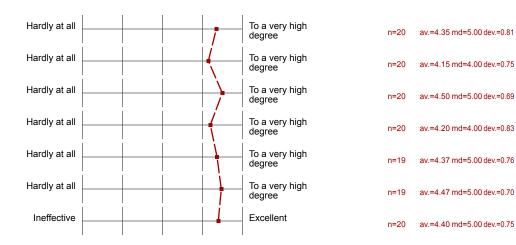
1.2) In this course I have learned:

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.
- ^{2.2)} 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:





Dear Professor Youngmin Park:

Student Opinion of Teaching Questionnaire Results

This form contains evaluation results for INTRO TO MATRICES & LINEAR ALG(MATH-0280)-1020.

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.

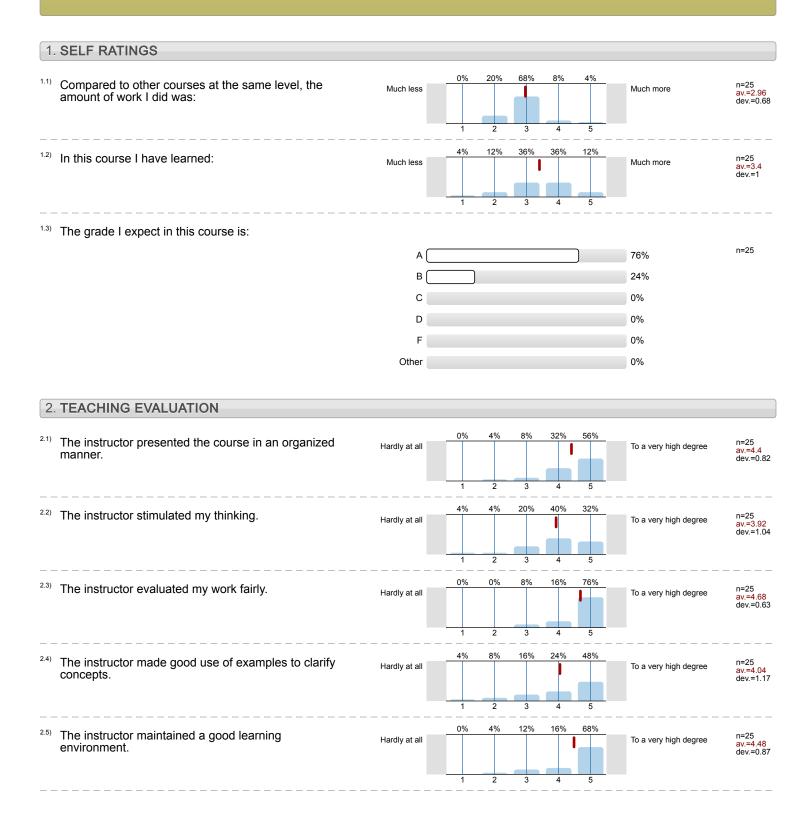
If the number of respondents for any of the scaled items is fewer than seven, please be cautious in interpreting the quantitative results.

Office of Measurement and Evaluation of Teaching (OMET)

Professor Youngmin Park



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:

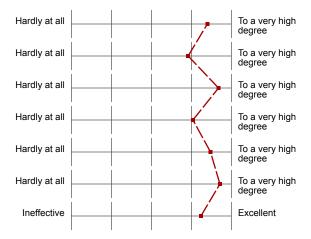


n=25 av.=2.96 md=3.00 dev.=0.68

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.
- ^{2.2)} 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 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.

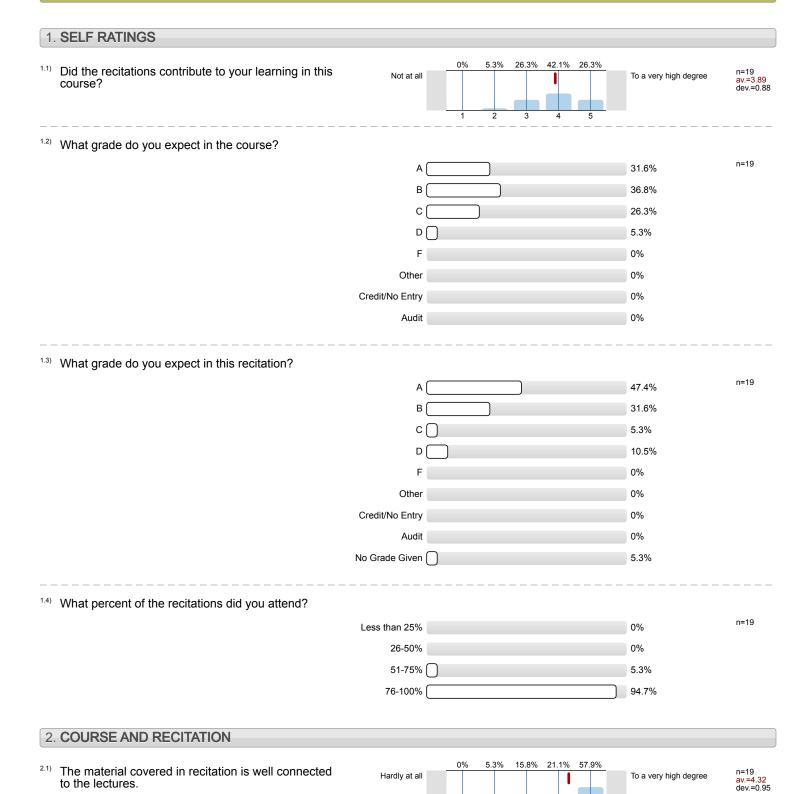
If the number of respondents for any of the scaled items is fewer than seven, please be cautious in interpreting the quantitative results.

Office of Measurement and Evaluation of Teaching (OMET)

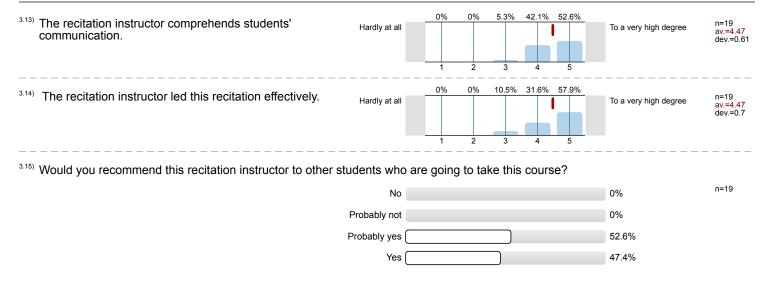
Professor Youngmin Park

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% ^{3.10)} 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.

- ^{4.2)} 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

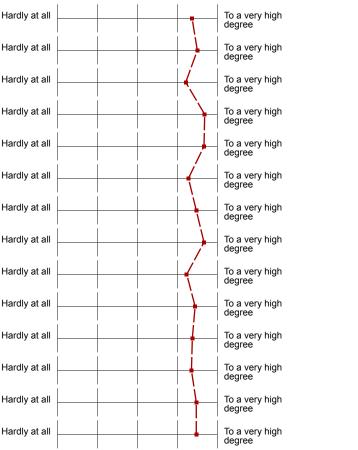
2.1) The material covered in recitation is well connected to the lectures.



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.
- 3.2) 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.=0.76
n=18	av.=4.50 md=5.00 dev.=0.62
n=19	av.=4.21 md=4.00 dev.=0.85
n=19	av.=4.68 md=5.00 dev.=0.58
n=18	av.=4.67 md=5.00 dev.=0.59
n=18	av.=4.28 md=4.00 dev.=0.67
n=19	av.=4.47 md=5.00 dev.=0.61
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.=0.61
n=19	av.=4.47 md=5.00 dev.=0.61
n=19	av.=4.47 md=5.00 dev.=0.70