THE OHIO STATE UNIVERSITY GRADUATE SCHOOL

GRADUATE ASSOCIATE TEACHING AWARD APPLICANT INFORMATION

APPLICATION DUE MONDAY, FEBRUARY 15, 2016

SUBMIT APPLICATION TO:

IN PERSON TO:	OR VIA EMAIL TO
GRADUATE SCHOOL	
ATTN. BEN REDER	
250 UNIVERSITY HALL	BEN REDER
230 NORTH OVAL MALL	REDER.18@OSU.EDU

Submit this information sheet with your teaching portfolio. If you decide to retype the form, please maintain the format. Consult the GATA guidelines (go.osu.edu/gata) while completing the application to ensure that you have included the required elements.

Meehan, Sean — LAST NAME, FIRST NAME

meehan.73 — OSUID OR NAME.#

[redacted] — STREET ADDRESS

Dublin — CITY

OH — STATE

43016 — ZIP CODE

Mathematics, Doctor of Philosophy — GRADUATE PROGRAM

Please desribe your research interests in 3-5 sentences. Please use language appropriate for a general audience.

I am interested in an intersection of probability and combinatorics known as random matrix theory. One often considers matrices as an array of finite, predetermined entries, but what if the entries are instead each chosen randomly? For example, each entry can be +1 or -1 with probability 1/2, depending upon the flip of a coin. Random matrix theory is the study of how matrices (most often their eigenvalues) behave under these probabilistic situations, and one can show that in some sense, order is preserved among the probabilistic chaos.

Hoi Nguyen — ADVISOR

nguyen.1261@osu.edu — ADVISOR EMAIL

Mathematics — ADVISOR DEPARTMENT

I have always had a love of mathematics. My parents tell me that as a two-year old, I would often place myself directly in front of the TV at night; the NJ Lottery was on, and I absolutely loved watching all of the numbers flop around. Over the years, math has become more than just a subject to me—it is my profession, my passion, one that I now realize has been formally shaped in and out of the classroom as a direct result of many great instructors whom I've had the honor of studying under. And now, the tables have turned—it is truly an honor to be able to share this passion with my students and have some impact, however large or small, on their lives. As a result, my philosophy of teaching is a statue sculpted by many of my previous instructors and everything they did for me. I strive for my students to feel comfortable in the classroom and for them to believe in their ability—not only as math students, or even Ohio State students—but as *people* who are fully capable of achieving any pursuit. While this proverbial tower of confidence is being built, I structure it by striving to give them all of the tools they could utilize to succeed, both academically and spiritually. This duality of comfortable confidence and implementation are instrumental in my methodology as a TA, and I hope to exemplify that throughout the course of this article.

First and foremost, I always try to be aware of the anxiety that can accompany the courses that I teach. Let's be honest—math makes a lot of people nervous. Even before I start teaching the topics "L'Hopital's Rule" or "Partial Fraction Decomposition," students may already be shuddering at the section titles alone. So how does one combat such trepidation? Well, for one, I always work up to the current topic at hand. I provide motivation based on what we've previously covered, and I draw analogies to content that I know my students feel more comfortable with. A simple acknowledgement such as "True, Lagrange multipliers sound intimidating, but they're really just a new way to find absolute maxes and mins!" immediately puts smiles on many students' faces. They understand that I'm aware of their anxiety, and this builds trust that everything will be alright. I can then delve into the new content, crafting a story or two so that the new methods stick. A math lesson on trigonometry becomes a history lesson on Sohcahtoa, the famous Indian princess who became very proficient in mathematics (and whose name serendipitously resembles the relationships of **S**ine = **O**pposite/**H**ypotenus, **C**osine = **A**djacent/**H**ypotenus, **T**angent = **O**pposite/**A**djacent). The convoluted formula for the numerator of the quotient rule becomes the fun song "low de high minus high de low." And so on. After I've explained the tools for how to approach the style of problem for the day, we begin solving. I put a problem on the board, and the art of solving the problem relies on a lot of "give and take." I'll start the process, and then immediately ask my students for help at a critical juncture. I believe that there is value in this process, as opposed to coddling them with answers. While I'm sure my students would love it if I were a mathematical robot whose sole purpose were to quickly write the full solutions on the board, as opposed to questioning them, I would be doing them a huge disservice; my ultimate goal is for them to be able to think for themselves. We continue solving the problem, working as a *team*, until we are all content with the final answer and previous work on the board.

I strive to make every topic accessible to every student in the class; no question is unwelcome. When there are questions, it's often because a concept merely needs to be explained in a different way so that the metaphorical lightbulb finally clicks; I find this process—that of explaining content in a different light—especially exciting in mathematics. In his book "Love and Math: The Heart of Hidden Reality," Edward Frenkel explains "A drunkard may not know which number is larger, 2/3 or 3/5, but he knows that two bottles of vodka for three people is better than three bottles of vodka for five people." Once I explain the topic in a different way (I always make sure to have several different methods in my repertoire), I make sure to gauge the student's body language, ending my explanation at a time when we are both satisfied. I truly try to model part of my teaching off of this quote, making life interesting for both myself and my students. A geometrical diamond is not a diamond; it is a baseball field. A sphere floating in three-space being projected onto the x-y plane is not a sphere floating in three-space being projected onto the x-y plane; it is a basketball floating in the air, and we are interested in the shadow it reflects. Not only does explaining content in these fun, easy-to-visualize ways help make the information

easier to digest, but it also gives it more meaning. Many of my students are engineers, and some like to believe that mathematics is the theory and engineering is the practice. I make it my goal to turn this notion around on them, showing them that the topics taught in my classroom are very relatable to their everyday lives.

Outside of the classroom, I give my students multiple avenues to further their learning, avenues in which some feel more comfortable. The office hours I hold each week are terrific ways for students to ask me questions in a smaller setting. The structure is also different; in office hours, I make sure my students are mainly working on their own problems, and I'm there to answer questions as they arise. This is nice because it provides a more individualized environment for them. It's proven to be pretty popular; last semester I received about an average of 30 students during each office hours session, which accounts for about half of the students for whom I TA'ed. My students are also free (and highly encouraged!) to make one-on-one appointments with me if they cannot make my office hours, and they're also highly encouraged to ask me questions over email as well. I fully admire those students who are motivated enough to be asking serious questions late at night, so it's my privilege to be able to promptly respond to them. I solve a few extra problems each week and send them out via email. This provides the students with more resources to study from. I also make sure to hold extra office hours (sometimes up to ten in one week) and review sessions for exams, because I fully understand that exam week can be especially stressful. Even if some students never come, this hopefully eases their mind so that studying is no longer as intimidating—there is always a time where they can find me for help if needed. I've also been known to write up practice exams, and I offer to grade them for students; students appreciate this because sometimes they are looking for an assessment before they head into the exam, and this pinpoints areas where they can improve.

I began this article by comparing my philosophy of teaching to a statue; I believe that there is value in reflecting on one's philosophy of teaching and that this process chisels the statue into a more completed work. Even the process of writing this statement has taught me much about myself and my teaching. This act of reflecting helps to possibly bring in new ideas, methods, and techniques which may not have previously been implemented. For example, a valuable experience for me occurred last semester when I was able to be a mentor for new TA's in the math department. Part of the process involved visiting first-year TA's and observing their recitations. Upon arriving a few minutes early to one of my TA's recitations, I saw he was already informally lecturing his students—although it was not related to his recitation that day, he was using the extra time to describe what he believed to be one of math's most beautiful equations. After the fact, he told me the conversation started because a student asked about it, but upon reflection there was a fun idea here; ever since then, I try to simply talk to my students before class about some out-of-the-box application related to the math that we're focusing on, whether it's NBA sabermetrics or the math on the chalkboard of “Good Will Hunting.” I find that this keeps motivation at an all-time high, adding to the mystique, applicability, and beauty of the math that we were already solving.

I hope that, when my students walk out of my recitation for the final time, they have learned something about themselves, both as students and as people. While the material they've learned and the knowledge they've gained is important, I want my students to remember more than just the course content when they reflect back on their time in my classes. Regardless of the course that I'm TA'ing, I end my semester with my students the same way each time. I've prepared a handout that creates a mathematical lineage, starting with one of the inventors of calculus—Isaac Newton—and working its way down, with each new mathematician being a student of the former. The greatest accomplishment of each mathematician is also listed. After about 17 student-teacher relationships, my students' names pop up right after mine, which puts them in a direct descendance with Isaac Newton. I list their greatest accomplishment as “TBD,” and I urge them to go out and make a difference, because life is more than just calculus.

Graduate Teaching Assistant:
Most of the graduate students in the math department are departmental TA's. This is now my fourth semester as a TA at OSU. In the following pages I will outline the courses I have assisted and my various responsibilities each semester as a teaching assistant.

MATH 1151 – Calculus I Teaching Assistant (Autumn '14, Spring '15, Autumn '15)

MATH 1151 is typically the first math requirement that students will fulfill for their respective majors; as a result, most students are not mathematics majors. It is the most commonly-taken math course at OSU, with enrollment sometimes exceeding over 8000 students in a semester. Students whom I've taught majored in a variety of disciplines, including (but not limited to) engineering, biology, neuroscience, computer science, psychology, and earth sciences. Students are typically freshmen and sophomores, but I've taught a fair share of juniors and seniors as well.

The goal of this course is to master the essentials of Differential Calculus and its applications. The tools gained in this course will be directly applicable to many future courses that the students will have to take, as well as many situations they will ultimately encounter in their respective careers.

MATH 1151 is a 5-credit Monday-Friday course; the students spend three 55-minute periods (Monday, Wednesday, and Friday) in lecture with their instructor, and then two 55-minute periods (Tuesday, Thursday) with their TA. Each semester I was in charge of two such sections, and each of my two sections typically contained about 33 students.

MATH 2177 – Mathematical Topics for Engineers Teaching Assistant (Spring '16)

MATH 2177 is much further along in the math track than MATH 1151. Calculus I, II, and III are all prerequisites, and many students taking this course are upper-level engineering students.

The goal of this course is to give the students more tools to solve problems that they will frequently encounter in engineering. We utilize concepts from their previous math courses in order to cover various topics in Calc III, linear algebra, and differential equations.

MATH 2177 is a 4-credit course; the students spend three 55-minute periods (Monday, Wednesday, and Friday) in lecture with their instructor, and then one 55-minute period (Tuesday) with their TA. I am in charge of three such sections; two contain 22 and 20 students, while the third contains 3.

My Responsibilities for these Courses

- Lesson Planning: I am fully in charge of looking through the sections of material that were covered in lecture and governing the amount of time spent on each in recitation. This involves writing up notes to present in recitation and selecting which problems to discuss and solve, as well as preparing the intellectual setting in which we will solve them (different material lends itself to different methods, such as class discussions, smaller group work, or handouts that I would prepare).
- Grading: Students in MATH 1151 were responsible for in-class quizzes, take-home quizzes, and exams. It was my responsibility to grade these assessments promptly and fairly (in accordance with a "grading guide" PDF). In MATH 2177, students submit a written homework assignment of around 15-20 problems a week, and it is my job to select 2-6 appropriate problems to then grade. I am also responsible for grading exams; there is no more grading guide, so it my responsibility to grade all assessments fairly without one. I also type up solutions to each homework assignment.
- Availability for Students: I hold three office hours each week where students can come and ask me any questions they have. If my office hours conflict with my students' busy schedules, they could make a one-on-one appointment with me, usually adding a few more hours a week. Though optional, I hold three-hour reviews for exams and schedule additional office hours during an exam week. Even if busy, I immediately respond to an email letting a student know that I received his or her email and that I will respond as soon as possible.
- MSLC Tutoring: One (MATH 2177) or two (MATH 1151) hours each week as a tutor at the Math

and Stats Learning Center. This is a free service for any student taking either course; the rooms fit about 30 students who show up, work on homework, and raise their hand whenever they have a question. Typically I tutor and answer questions consistently throughout the entire few hours.
- Reporting to the Lecturer: I give my lecturers feedback on how students are performing, the topics I'm emphasizing, students' strengths and weaknesses, students' opinions on lecture, grades, and anything else students might not feel comfortable mentioning to the lecturer themselves.

Reflection
MATH 1151 had a monumental impact on me as a TA; it was exciting being a part of such a large course that is the foundation of many students' majors. As a result, it was a very structured course, which taught me how to be fully creative in my recitations to maximize my impact as a TA. MATH 2177, on the other hand, is currently shaping my teaching ability by giving me more freedom: I grade according to my own rubric, pick my own problems to grade, and spend more time on content that I choose.

Graduate Teaching Assistant/Grader:
While I was formally listed as a TA, my Summer '15 obligation was grading for MATH 2415 (Ordinary and Partial Differential Equations). I'm reporting this because while I did not teach a recitation, my responsibilities included maintaining and explaining homework solutions on Carmen for the students, as well as consistently reporting students' strengths/weaknesses to the instructor. I also conferred with the instructor on the design of quizzes and exams. I was accountable for two sections, each about 30 students.

Reflection
This experience shaped me by showing me how to teach from afar. Because I never held recitations, I put everything into typing up well-explained solutions (as well as typing up common mistakes on the homework assignments) to post to Carmen, designing rubrics to grade the students' problem sets fairly, and choosing the best problems for assessment in the course.

First-Year Teaching Assistant (FYTA) Mentor:
In Autumn '15 I was hand-selected to be one of the FYTA mentors within the math department; I oversaw three first-year TA's and gave them feedback on how they were doing.

My Responsibilities as a FYTA Mentor:
- Visiting one of each of my FYTA's classes and completing TA observation forms: It was my job to oversee their recitations and take notes on what I observed. It was also my responsibility to turn the form into the TA coordinator and to alert him immediately if I saw anything serious.
- Providing feedback to each of my FYTA's: I met with my FYTA's and offered them feedback (both positive and negative) based on my observations; I tried to relate these comments to my experiences as a TA. We also went over their mid-semester evaluations; once students had submitted the departmental first-year TA evaluations, I met with each FYTA and we analyzed them together.
- Scheduling an observation for the FYTA to attend: It was my responsibility to arrange for each FYTA to attend a recitation in which I was teaching; each FYTA took notes, and we subsequently met and discussed what they observed.
- Meeting with the TA coordinator: We ended the process by scheduling a meeting to discuss the FYTA's whom I observed.

Reflection
This process allows me to learn more about myself and my teaching through watching others teach; I very much enjoyed my time as a FYTA mentor, and I'm looking to continue this process each semester.

Solving Related Rate Problems

October 15, 2015

My general guidelines for solving related rates problems:

1. Draw a picture! I can't stress this enough!

   If something changes over time, label it with a variable.

   If we have a value that does not change over time, label it with a number.

2. Try to form some relationship (formula) given our diagram. Usually, this invokes Pythagorean Theorem, an area/volume formula, trig, etc. This is where practice helps!

3. Now that we have our formula, use differentiation to introduce rates of change.

4. Plug in what we know, and solve for what we don't! Be sure to plug in a negative number if the rate is decreasing.

Example 1. *The sides of a square decrease in length at a rate of* $1\,m/s$.
a) At what rate is the area of the square changing when the sides are $5m$ *long?*
b) At what rates are the lengths of the diagonals of the square changing?

Example 2. *Two boats leave a port at the same time; one travels west at 20 mi/h and the other travels south at 15 mi/h. At what rate is the distance between them changing 30 minutes after they leave the port?*

Example 3. *An observer stands 200 meters from the launch site of a hot-air balloon. The balloon rises vertically at a constant rate of 4 m/s. How fast is the angle of elevation of the balloon increasing 30 seconds after the launch? (The angle of elevation is the angle between the ground and the observer's line of sight to the balloon.)*

Example 4. *An observer stands 200 meters from the launch site of a hot-air balloon. The balloon rises vertically at a constant rate of 5 m/s. How fast is the distance between the observer and the balloon changing 20 seconds after the launch?*

Example 5. *A spherical balloon is inflated and its volume increases at a rate of 15 in^3/min. What is the rate of change when the radius is 10 in?*

Example 6. *A 13-foot ladder is leaning against a vertical wall when Sean begins pulling the foot of the ladder away from the wall at a rate of .5ft/s. How fast is the top of the ladder sliding down the wall when the foot of the ladder is 5 feet from the wall?*

Example 7. *An inverted conical water tank with a height of 12 ft and a radius of 6 ft is drained through a hole in the vertex at a rate of $2ft^3/s$. What is the rate of change of the water depth when the water depth is 3 ft? (Hint: use similar triangles.)*

Example 8. *A plane flying horizontally at an altitude of $800m$ and speed of $200m/sec$ passed directly over a spectator at an air show. Find the rate at which the angle of elevation (the angle formed with the ground) is changing 4 seconds later.*

Related rates, a topic in MATH 1151 that occurs approximately midway through the semester, is typically regarded as one of the toughest sections of the course. I remember struggling with this material when I was an undergrad, and I wanted to figure out a way to make it as interesting as possible for my students. As a result, I decided to prepare this handout for a few reasons.

To mix things up: Up until this recitation, most of the material that we discussed lent itself to being covered on the board; I would begin recitation by giving a general outline of how to approach the day's problems, and we would then begin solving problems as a class. So what better way to spark interest than giving a nice shock to the old system? On this artifact I decided to still give the students a brief explanation on how to solve related rates problems (see "my general guidelines for solving related rates problems"), and I also still approached the examples on the board while receiving input from my students, but I found that the mere act of distributing this handout immediately perked up students. We were able to temporarily shed the monotony of their textbooks and notebooks, replacing them with an exciting new style of learning.

To optimize time: Even before I decided to type the handout, the plan was always to cover as many of the artifact's eight examples with my students as possible. Upon preparing for this recitation, I realized some of the problem statements were quite wordy and that they would take a while for me to write on the blackboard (for instance, see example 3). This handout is effective because it allows me to truly make the most of my 55 minutes—with the problems already in front of my students, I was able to read them out loud and then immediately start solving them on the blackboard, which allowed me to cover more examples without shortcutting the problem statements in any way. After class, I asked my students how they felt about the handout in this regard; they certainly agreed that this was the right call, appreciating the extra problems that we were able to cover as a result.

To provide extra examples: When students are struggling with a certain concept, they typically ask me to provide them with additional problems to work on, and I'm always more than happy to provide them with some. For this reason, I intentionally included more examples on this handout than we were able to cover in one day. When class ended, I let the students know that the remaining unsolved problems were for them to take home and work on by themselves, and that there were a few avenues for help along the way. For one, the previously solved problems were right in front of them, and some similarities to these solved problems could be found. I also let everyone know that I would be more than happy to check solutions during office hours, hopefully resulting in some new students attending. Finally, only after everyone had enough time to work on the problems, I sent out solutions to the class. Many students did approach me during office hours, and I received a spike in emails asking about the unsolved related rates problems, so I appreciate that students worked on the extra problems at home even though they weren't obligated to.

To instill independence: With the time I saved by not having to write each question on the board, I was able to spend more time asking the students to attempt the problems on their own. Each new example began with me saying something along the lines of "Okay, now let's give Example [x] a try. See if you can make any progress on your own, and I'll come around to help." I would then hover around the classroom, checking on students' work and asking questions to the class as I went. This was a fun way to allow for the students to work on the questions independently, while still having my guidance if they needed it. After a few minutes had gone by, we would then solve the relevant example on the board as a class.

The positive feedback that students gave me regarding the implementation of this handout helped encourage me to pursue similar avenues for future recitations. Different content resulted in different methods of teaching, but due to the success of this handout, my recitation planning shifted from questions such as "Which problems should I prepare?" and "How should I explain these problems?" to, additionally, "*In which setting* should I present these problems?"

The feedback that I receive from students is obtained in different ways—end of the semester online SEI's (both quantitive ratings as well as qualitative comments) and departmental student evaluations provide me with a lot of valuable feedback. I'm also an extremely extroverted TA, which often leads to students providing me with unsolicited comments. Here I hope to provide and reflect on the feedback that I have received from my students. Unless otherwise noted, the quoted comments are taken from the "Please share your comments about this TA" section of the departmental student evaluations as well as the SEI comments section.

Feedback regarding enthusiasm: I believe that an excited teacher can sometimes make all the difference in exhibiting that excitement in students. To that end, I let my passion toward mathematics—which is very real, and very substantial—show, in hopes that it will create a better learning atmosphere. The comments in my departmental evaluations reflect this, with students saying things such as *"Sean is really passionate about teaching and eager to see his students succeed"* and *"His eagerness made me more of a fan of math."* I also realized that this eagerness could also be applied toward my students to the same effect; I truly wanted for them to do as well as possible, both in math and in life, and I frequently would let them know this. Comments such as *"Really appreciate how genuinely concerned and invested he is in his students. Makes me want to do better"* and *"He really cares that his students do well in this course and gives us all the resources necessary to do so"* let me know that, like my enthusiasm in the classroom, my enthusiasm toward my students is helpful.

Unsolicited feedback: Because I often ask students for their opinions on changes that could be made to recitation, I tend to get a lot of unsolicited feedback—through various means—as a result. During the semester, students feel comfortable emailing me their thoughts, and I'm happy to take them to heart. For example, while typing this article, a student from my MATH 2177 course just replied to one of my emails letting me know that a review sheet could be helpful for their upcoming exam in a few days, as a lot of formulas have been covered. This was something I had not previously considered, but I think it's great advice! Students also provide unsolicited feedback at the end of the semester, usually thanking me for my hard work and commenting on the most helpful aspects of our semester together. I take these comments seriously and make sure to implement them in future semesters.

Feedback regarding recitation atmosphere: I ask for questions during recitation, and this often results in open discussions regarding the problems at hand. Sometimes, a topic just needs to be described differently, and I do my best to keep finding different ways until the content makes sense. I try to read my students' body language and check that my explanation clicked, but the anonymous reviews help. Comments such as "*He would always explain things in a way that would be easier to understand"* and *"Finds best way to communicate topics with students"* provide affirmation. Other students commented on the manner in which I would relate the problems, stating *"he makes calc so relatable and understandable."* These reviews help confirm that I am achieving the desired classroom atmosphere.

Feedback regarding availability: I often urge my students to let me know if they ever need any additional help. Whether it's office hours, one-on-one appointments, or email, there are ways to find me and discuss the material. These are by no means an obligation, but I want them to know that these options are available to them if desired. Student evaluations let me know that they are happy with these avenues, as well as the frequency through which they can meet me. Receiving comments along the lines of *"he is always there if you need him"* and *"So easy to find. He has plenty of office hours and has answered my emails past 12 AM"* tells me that students realize and appreciate my willingness to help.

Feedback regarding pace of recitation: When I'm solving problems with my classes, I typically pause and ask them for help at various times during the process. One thing I learned through my Fall '14 departmental mid-semester evaluations was that some students desired more time. A few of the comments I received were *"Sometimes you could give students more time to think by themselves"* or *"One minor recommendation is asking the class for steps before doing. Although this has been done in class, increasing the amount of times may be helpful."* I took these reviews to heart, and thanked my classes for

letting me know; for the rest of the semester, I made sure to give them more time to reflect and provide their input. They thanked me for the change on the end of semester evaluations, with one student even personally emailing me, informing me that he was someone who requested more time and attributed his growth in the class to the change. At end of the semester, my SEI scores for "Encouraged Independent Thinking" were a 4.8 and a 4.7 (out of 5), which also tells me students were happy with the changes.

Consistent feedback from students: Every now and then during the semester, I'll ask my students (both as a whole in class, as well as during office hours) how recitation is going for them and if they'd like for me to make any changes. I want to be able to get a sense of their opinions *during* the semester, as opposed to at the end, so that I can immediately make improvements if necessary. I'm always happy to hear back from my students, and seeing comments like *"Awesome. Frequently asks if there is anything different that we would like him to do"* and *"He asked us for our input, and he is extremely personal and approachable. I felt comfortable going to him with any suggestions I had"* tells me that my students and I were on the same page. Other students appreciated that they felt comfortable emailing me and that I would quickly respond to them, which meant I was accomplishing my goal of being on a friendly level with them—no math question is ever unwarranted, and I'm always shooting to make sure that my students feel comfortable emailing me.

Feedback regarding teaching methodology: My "Overall Rating" on the end of the semester SEI's always paint a nice picture—four out of six semesters I've received a mean of 5.0 out of 5.0, and the remaining two I've received 4.9 and 4.8. The students' comments on these SEI's typically reinforce this, with feedback such as *"Excellent job. Sean could not have done better," "Sean was the best TA I've had in any subject,"* and *"Best TA at OSU."* While I appreciate the kind words, my teaching is not perfect, nor am I Ohio State's best TA. Rather, I like to reflect on more descriptive comments from the SEI's:

> *"Sean was the best TA I've ever had in any subject. I'm a returning freshman, meaning I graduated with a liberal arts degree from OSU three years ago, studying electrical engineering. I have not seen the level of engagement from any member of the OSU faculty that even remotely comes close to the level of engagement Sean displayed. He genuinely wanted to help each and every student. He held 3 hour long review sessions before each midterm. Held extended office hours before each midterm and sent out typed up notes and review emails. I was absolutely amazed by the level of work and attention he gave our class. If I could nominate him for some kind of award or recognition for his efforts, I would do so in a heartbeat. He doesn't just deserve a pat on the back for a good review. He deserves to be formally recognized for his efforts. I plan to tell him exactly what I wrote above to him on our final day of recitation."*

This student did end up finding me at the end of the semester, and I proudly shook his hand, thanking him for all of his hard work. Much more of the qualitative data that the students provided hit on the same areas: the three hour exam reviews, extended office hours, and typed notes were highly appreciated. These are aspects of my teaching that I will certainly continue to carry out each semester as a result.

Below is the quantitive data from the math department student evaluations. At least 25 students from each recitation responded, and the scales vary from 1 (poor) to 5 (excellent).

Department of Mathematics Teaching Evaluations

	Instructor Average
The instructor communicated the subject matter clearly.	5.00 (Au '14), 4.93 (Au '14) 4.81 (Sp '15), 4.96 (Sp '15) 5.00 (Au '15), 5.00 (Au '15)
Overall, I would rate this instructor as...	5.00 (Au '14), 4.97 (Au '14) 4.95 (Sp '15), 5.00 (Sp '15) 5.00 (Au '15), 4.96 (Au '15)

Sean Michael Meehan

Cumulative Student Evaluation of Instruction Summary

Report generated on 02/15/2016

NOTE TO INSTRUCTOR: Mark the "Multi Inst" box for course sections that were team taught or had more than one instructor.

"Web" is "Y" if student ratings were collected electronically.

Comparison groups are based on class size (Small, Medium, Large) and electivity (Required, Free, Choose). See individual reports for more details.

SEI Item Descriptions

1. Well organized
2. Intellectually stimulating
3. Instructor interested in teaching
4. Encouraged independent thinking
5. Instructor well prepared
6. Instructor interested in helping students
7. Learned greatly from instructor
8. Created learning atmosphere
9. Communicated subject matter clearly
10. Overall rating

MATH 1151 College: ASC Campus: COL

Multi Inst					1	2	3	4	5	6	7	8	9	10	Item 10 Comparison
☐	2014 Autmn	Class Num: 20746		Instructor Mean	4.7	4.5	4.9	4.8	4.9	5.0	4.9	4.9	4.9	5.0	4.3
	#Enrolled: 31	#Resp: 20	Web: Y	Instructor SD	0.5	0.7	0.3	0.4	0.3	0.2	0.3	0.4	0.3	0.2	
☐	2014 Autmn	Class Num: 20747		Instructor Mean	4.8	4.6	5.0	4.7	5.0	5.0	4.9	5.0	5.0	5.0	4.3
	#Enrolled: 32	#Resp: 20	Web: Y	Instructor SD	0.4	0.7	0.0	0.6	0.0	0.0	0.3	0.0	0.0	0.0	
☐	2015 Spr	Class Num: 20087		Instructor Mean	4.8	4.5	5.0	4.8	4.9	5.0	4.9	4.8	4.9	4.8	4.2
	#Enrolled: 31	#Resp: 17	Web: Y	Instructor SD	0.5	0.7	0.0	0.6	0.5	0.0	0.5	0.5	0.5	0.5	
☐	2015 Spr	Class Num: 20088		Instructor Mean	4.6	4.4	5.0	4.6	5.0	5.0	4.8	4.5	5.0	5.0	4.2
	#Enrolled: 28	#Resp: 12	Web: Y	Instructor SD	0.5	1.2	0.0	0.5	0.0	0.0	0.4	0.7	0.0	0.0	
☐	2015 Autmn	Class Num: 17003		Instructor Mean	4.5	4.5	4.9	4.6	4.8	4.9	4.9	4.9	4.8	4.9	4.3
	#Enrolled: 30	#Resp: 17	Web: Y	Instructor SD	0.6	0.7	0.3	0.8	0.4	0.2	0.3	0.3	0.4	0.2	
☐	2015 Autmn	Class Num: 17004		Instructor Mean	4.3	4.0	4.9	4.7	5.0	5.0	4.9	4.9	5.0	5.0	4.3
	#Enrolled: 34	#Resp: 18	Web: Y	Instructor SD	0.7	0.9	0.2	0.5	0.0	0.0	0.2	0.2	0.0	0.0	

THE OHIO STATE UNIVERSITY

Sean Meehan

Course: MATH 1151
Campus: COL College: ASC

Student Evaluation of Instruction Report

Spring 2015
Class Number: 20088

Response rate: 42.9 % of 28 enrolled **Were student ratings for this report collected on the web?** Yes **Date of Report:** 02/15/2016

Response scale is Likert-type with "5" being high and "1" being low

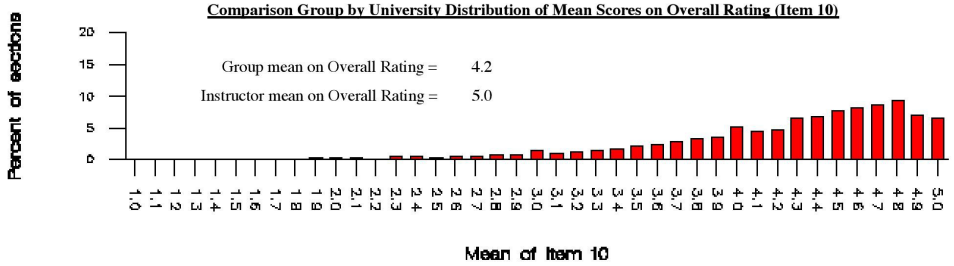
	N	1	2	3	4	5	N/A
Instructor's preparedness, organization of material, and clarity of presentation							
1. Well organized	12	0 %	0 %	0 %	42 %	58 %	0 %
5. Instructor well prepared	12	0	0	0	0	100	0
9. Communicated subject matter clearly	12	0	0	0	0	100	0
Rapport and instructor commitment							
3. Instructor interested in teaching	12	0	0	0	0	100	0
6. Instructor interested in helping students	12	0	0	0	0	100	0
8. Created learning atmosphere	12	0	0	8	33	58	0
Students' sense of their own learning							
2. Intellectually stimulating	12	8	0	8	8	75	0
4. Encouraged independent thinking	12	0	0	0	42	58	0
7. Learned greatly from instructor	12	0	0	0	17	83	0
10. Overall rating	12	0	0	0	0	100	0

Your ratings are summarized below. When sufficient data exist, summaries are also provided for up to three reference groups. Your "comparison group" is based on the size of your class and the predominant reason students indicate they enrolled. Comparison group data are reported at both the college and university levels. Over the prior 12 months, 2544 instructors and 5567 course sections were in your Comparison Group by College, and 3987 instructors and 8722 course sections were in your Comparison Group by University. Across all the courses using the SEI instrument since 1994, 42.75% of them share the characteristics listed below. The Course-Offering Unit listing is not based on size or electivity; it is a summary of the SEI data across the prior 12 months in your department or school.

Your comparison groups have the following qualities:
Class size: 20 to 60
Predominant reason given for enrolling in this course was that it was required in the student's major/minor or it fulfills a General Education requirement.

	This Instructor		Comparison Group by College		Comparison Group by University		Course-Offering Unit	
	Mean	Std.Dev	Mean	Std.Dev	Mean	Std.Dev	Mean	Std.Dev
1. Instructor well organized	4.6	0.5	4.2	0.5	4.2	0.5	4.2	0.5
2. Intellectually stimulating	4.4	1.2	4.1	0.5	4.1	0.5	4.1	0.5
3. Instructor interested in teaching	5.0	0.0	4.4	0.6	4.4	0.6	4.3	0.6
4. Encouraged independent thinking	4.6	0.5	4.3	0.5	4.3	0.5	4.3	0.5
5. Instructor well prepared	5.0	0.0	4.3	0.6	4.3	0.6	4.2	0.6
6. Instructor interested in helping students	5.0	0.0	4.4	0.6	4.4	0.6	4.3	0.6
7. Learned greatly from instructor	4.8	0.4	4.1	0.7	4.1	0.7	4.1	0.7
8. Created learning atmosphere	4.5	0.7	4.2	0.6	4.2	0.6	4.2	0.6
9. Communicated subject matter clearly	5.0	0.0	4.1	0.7	4.1	0.7	4.0	0.7
10. Overall rating	5.0	0.0	4.2	0.6	4.2	0.6	4.2	0.7

Comparison Group by University Distribution of Mean Scores on Overall Rating (Item 10)



Policies and procedures regarding SEI reports are addressed in the SEI handbook. See www.sei.osu.edu for more information.
Report generated by the Office of the University Registrar. Questions may be e-mailed to <seiadmin@osu.edu>.

THE OHIO STATE UNIVERSITY

Sean Meehan
Course: MATH 1151
Campus: COL College: ASC

SEI Comment Report

Spring 2015
Class Number: 20088

Best TA I've ever come across. Helped a great, great deal this semester.

Sean is an exemplary TA. He is very motivated and works hard to ensure that his students succeed. All TA's should take note of Sean's methods of teaching. Math is a difficult subject for many students, and it is not very interesting. Sean makes it fun and easier to understand. He takes great pride in the outcomes of his students on the exams and works to outdo the other sections. I am very satisfied with Sean and strongly approve of his work this year.

Sean not only helped me an extreme amount but also constantly encouraged us to reach out to him with any problems we were having and created extra office hours for us. By far the best TA I have had at OSU.

By far the best teaching assistant I've had at Ohio State. Sean genuinely cares about his students and knows how to get concepts across to students in a relatively easy manner. Without him I probably would do poorly in this course, and in all honesty I learn more from him in recitation than I do in lecture.

Loved how the recitation was like another class and how it wasn't "here's a sheet, work on it". I had to drop out of my last Calc course but am now getting an A. Professor and Recitation with this person made it happen

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Always made time to help students and added extra office hours during exam time Emailed notes on sections we wouldn't get much time to cover Emailed examples for difficult sections Genuinely cared about his students

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Sean is very friendly, easy to talk to, and always willing to help! Provides awesome notes and really helped me learn way more than I did in lecture. Go Sean!

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easily greatest teacher I have ever had. he goes out of his way to help his students. absolutely incredible! I truly wish all professors/TAs were like him!

Sean is an excellent T.A. By far the best T.A. I have had thus far at OSU.

Sean is the best TA I have had yet at Ohio State, as he taught the material very thoroughly and in a way that helped the students be prepared for quizzes and exams. He genuinely wants to help his students succeed in learning calculus and doing well in the class. He is always prepared and gives us as much of his time that he can during office hours, review sessions, etc.
