The College of Engineering's
Richard and Eleanor Towner Prize for
OUTSTANDING GRADUATE STUDENT INSTRUCTORS
GSI Reflective Statement

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Please complete the form and answer the following 4 questions. Use the space provided below and give specific examples. Save the file as a PDF and use the following naming convention:
"GSILastName_GSIFirstName_Towner2015reflect.pdf"
(e.g., Jones_Pat_ Towner2015reflect.pdf)

Background Information			
GSI's Name:	**Tierney**	**Brian**	**B**
	Last	First	Middle Initial
Course Number:	**EECS 230**		
Course Size:	**Approximately 70**		
Term:	☒Fall 2013	☐ Winter 2014	☐ Spring/Summer 2014

GSI Reflective Statement

1. **Provide an example from your own teaching that gives concrete evidence of your excellence in teaching.**

I was waiting in the GSI room, EECS 2420, for the first student of the semester to stop by my office hours to help. The class, EECS 230, was my first GSI assignment. Although I have taught, tutored, and helped countless people in the past, I was already well-acquainted with most of these people and as a result they found it easy to seek my help and feel comfortable asking deeper questions. As I was thinking about this, I decided that I should figure out a way to develop this same approachability with each student in the class. So, I developed a plan.

At last, my first student had arrived. As he sat down, I held out my hand, he shook it, and I asked for his name. "Rob," he said. As he was leafing through his notes, I scribbled his name down on a piece of paper so that I wouldn't forget it. A simple gesture, but critical for developing approachability with each student. A teacher's knowledge is squandered if nobody wants to ask questions. So I continued toward the goal of approachability, as Eddie and Saurabh sat down next to Rob.

Throughout the semester, I strived to provide all explanations with patience, knowing that everybody comes into the class with different abilities and backgrounds. Not everything clicks the first time. Several explanations may be required. But knowing this is another key component of developing approachability with the students. So, I couldn't have been happier when I saw comments like these on the end-of-year instructor report:

"One of the better GSI's I have had in engineering classes at Michigan. Great experience with him. He was patient, and very well-versed and helpful."

Over time, the students were very familiar with me. I was pleased when Malik wanted to stay late after lab one day to ask questions about developing an intuition for curl and divergence, two vector calculus topics that are very important in electromagnetics. As a student, I myself try to learn topics from a variety of perspectives, so I was able to present an intuitive insight into curl and divergence for him. His willingness to even ask the question was in itself satisfying. After half an hour or so, I had removed the confusing points from his line of thinking. Such requests from the students became a common occurrence and I was happy to help. In fact, Chet even approached me with a question regarding his undergraduate research. Over the course of an office hour session, I was able to relate his research to what he had been studying in class and he was able to apply it to his research.

Developing approachability, exhibiting patience, building credibility, and demonstrating a willingness to help are keys to success as a GSI. A year later, I still remember every student from my lab and wave when I see them.

2. Describe a class session, lab, or office hour setting that is a concrete example of your creativity and innovation as an instructor.

The third lab in EECS 230 is really a lecture given to a subset of the class. But since the lab sections are smaller than the lecture sections, different teaching techniques can be employed and it was up to each lab GSI to develop a plan for effectively teaching mutual inductance and impedance matching during the lab. So, I asked them all to solve an example problem individually at the beginning of class. After walking around to see how each student fared, I worked through the problem on the board while asking how they approached the problem. Eventually, we were working through the problem as a class and I was able to watch as they each developed an understanding to the topic. During each lab session, I was able to figure out methods of explaining the material in a way that they understood best, and each lab session I became a better instructor on the topic. At the same time, the students were able to learn the material better in a smaller, more engaging atmostphere.

For the topic of impedance matching, I decided give each lab group (consisting of 2 to 3 students) a problem to solve. Within each group, they engaged each other in the problem and collectively solidified their understanding. I was able to identify points where individual students were confused about the topic, making a mental note for the purposes of explaining the topic better in office hours.

I also employed a similar technique the evening before the final exam. My scheduled office hours had ended already, but there was a collection of students still looking nervous and flipping through pages of the book. I decided to review the course material on the chalkboard, beginning with the first topic on the syllabus. I provided them example problems for each topic, doing my best to engage them in the problem to figure out remaining points of confusion. I told them that they could ask any question they had about the material, and they did. This would be possible if not for developing the requisite approachability and trust throughout the semester. When the questions died down for each topic, I went on to the next. A few hours later, we had gotten through all the material. I was pleased to see their response on the end-of-year review:

"Always willing to help and answer questions. Even stayed a long time passed the scheduled office hours to make sure the material was clearly explained and understood. Great GSI. Provided great examples."

3. Describe a concept and/or topic that your students struggled with and what you did to help them overcome these challenges as concrete evidence of your dedication to student success.

One day, my office hours were empty. The homework was not due for several days. But then Ashley walked in. The week before, she had not turned in her lab report. I emailed to ask if she had forgotten it, but she responded simply that she was still having trouble understanding Smith Charts and transmission lines. I recommended that she stop by my office hours so that I could review everything. So, I began from scratch during those office hours. I drew a transmission line and explained why lengths of line are no longer negligible at high frequencies for the purposes of circuit analysis due the wave nature of electromagnetics. I reviewed all the definitions that she needed to know. I explained how a transmission line affects input impedance and how the Smith Chart can be used to do the math for us. I discovered that the plethora of equations was confusing for her but that I was able to break down the topic into simpler, easy-to-digest blocks without watering down the subject. At the end of the office hours, she had clearly overcome the points of confusion and was able to explain everything back to me.

Throughout the semester, confusion about transmission lines and Smith Charts was common. However, throughout the semester I was able to demonstrate the break the concepts into simple blocks for everybody to understand. I would explain it in the following steps:

1) I began as follows: 'Let's review. We are used to analyzing circuits as if they have no lengths. This is because we are used to working at lower frequencies, where the wavelength of the electromagnetic signal is so large that the lengths of line are insignificant. By insignificant, we mean that if we take a snapshot in time, the voltage along a length of line will remain constant. If we were to increase the frequency, and thereby decrease the wavelength, this will no longer be true, due to the wave nature of the signal. Therefore, we instead model these lengths of lines as "transmission lines", for which the phase of the signal varies with location.'
2) 'If we attach a load, such as a resistor or inductor, to the end of the transmission line, then we can examine the input impedance using the following equation.' I would write the equation. I explained how at the load, a signal traveling along the line would be reflected back, which led to the definition of reflection coefficient.
3) 'Reflection coefficients and load impedances are related mathematically. To make our lives easier, the Smith Chart was invented to graphically relate the two quantities in a one-to-one manner.' I would draw the Smith Chart and explain the graphical mapping. The chart contains numerous circles for this purpose. I would explain how the circles work. For the interested students, I would show them where these circles come from mathematically.

"*Brian taught transmission lines pretty darn well considering that many students greatly dislike the topic of transmission lines and also that transmission lines themselves are pretty hard to understand to begin with."*

4. Is there anything else you'd like the selection committee to know about your teaching?

A friend of mine once told in me during my undergraduate years, "You always try to think about things in the best possible way." That may not always be true, but I certainly always *try* to find the best way to think about a topic and strive to think about it from different perspectives simply for my own benefit. In my opinion, that has translated tremendously to teaching others and I am glad it has.

Overall, I have enjoyed teaching and was ecstatic to find that I was nominated by a student.

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Background Information			
GSI's Name:	**Tierney**	**Brian**	**B**
	Last	First	Middle Initial
Course Number:	**EECS 230**		
Term:	☒Fall 2013	☐ Winter 2014	☐ Spring/Summer 2014
Your Name:	**Grbic**	**Anthony**	
	Last	First	Middle Initial
E-mail Address:	agrbic@umich.edu		
Type:	☒Faculty Recommendation	☐Student Recommendation	

Recommendation Questions

1. What makes this GSI an excellent instructor? Please provide specific examples.

Brian provides clear examples, and relates the electromagnetics concepts in EECS 230 to everyday phenomena, to better explain them. He gets to know the students, their backgrounds, and their strengths during office hours and labs. This allows Brian to tailor his teaching style to each student in order to address their individual learning needs. It allows him to personalize explanations. He is systematic in his teaching approach, and breaks concepts down to the simplest terms possible. He explains the details without losing sight of the big picture.

When I asked Brian to develop new laboratories for EECS 230, he jumped at the chance. He saw it as a learning opportunity and a chance to contribute to the undergraduate experience in ECE. I would like to emphasize that the development of the laboratories was a summer project for Brian, separate from his research responsibilities.

Brian has also been a dedicated mentor to several undergraduate researchers in my laboratory. This experience has demonstrated Brian's effectiveness as a teacher outside of the classroom. This past semester Brian mentored Anuranjan HP (a masters student in Applied Electromagnetics and RF Circuits) on a directed study involving wireless power. He has also mentored Sammit Nene (an undergraduate student) on a directed study involving wireless power, as well as project groups pursuing the topic of wireless power in both EECS 430 and BME599. In addition, he has assisted several project groups in EECS 430 as a consultant for the fabrication of electromagnetic structures.

2. How does this GSI demonstrate creativity or innovation as an instructor? Please comment on her/his use of effective teaching strategies, creation of course materials, or other examples of creativity and innovation in teaching.

Brian developed new laboratories on wireless power transmission (a contemporary topic of research) for EECS 230. He formulated the experiments and wrote the laboratory manual. The laboratories incorporate the complete design of a wireless non-radiative power transfer (WNPT) system into the undergraduate course.

The purpose of Brian's educational endeavor was to relate fundamental course work to a topic in electromagnetics that has garnered significant public attention in recent years, in an effort to inspire the next generation of electrical engineers. In the past, the laboratory component of this course consisted of a number of disconnected sessions on various topics: acoustic waves, slotted transmission-line experiments, time domain reflectometry using a vector network analyzer, Smith chart calculations on experimental data, and the measurement of physical constants.

Brian Tierney wrote three laboratories. In these labs, students analyze, design and construct a functioning WNPT system. The laboratories are very innovative, in that they cover all the electromagnetics concepts covered in the course. Through the study of electrostatics and magnetostatics, students learn about capacitance, self and mutual inductance. This allows them to understand how receiving and transmitting metallic loops can resonate and magnetically couple to each other in a WNPT system. In addition, the study of magnetic dipoles allows students to understand the field patterns generated by the receiving and transmitting loops of a WNPT system. With the introduction of Faraday induction, they are able to construct a circuit model for their WNPT system. Transmission-line analysis shows students the importance of impedance matching in WNPT systems, and allows them to establish a bilateral conjugate impedance match for optimal power transfer efficiency. Therefore, all aspects of the course are touched upon in the analysis, design and construction of the wireless non-radiative power transfer system. Students characterize single and coupled loops, and develop circuit models for them. Finally, they impedance match the coupled loops and construct a voltage rectifier in order to wirelessly power a diode.

The laboratory manual is extremely well written. The questions asked at the end of each section of the laboratories were written by Brian. They are thought provoking, and require a deep understanding of the material. They do not simply require fill-in-the-blank answers.

3. How does this GSI demonstrate dedication to student success (e.g., availability, explanations, responsiveness, rapport, etc.)? Please provide specific examples.

As noted above, Brian was the lead architect of the wireless power laboratories. Even during semesters that he did not GSI the EECS 230, he revised the laboratories and incorporated changes suggested by instructors and current GSIs. This fact alone shows that teaching is not simply a job for Brian, but a lifelong passion.

I have listed below just a few student comments on Brian's effectiveness as an instructor. They are taken from his "Instructor with Comments Report" Report ID: MSR04734. The comments highlight his dedication to student success.

- *Always willing to help and answer questions. Even stayed a long time passed the scheduled office hours to make sure the material was clearly explained and understood. Great GSI. Provided great examples*
- *This guy is awesome, best lab instructor ever!*
- *Brian was one of the best GSI's I have had the pleasure of learning from during my time at the U. No complaints, he was a great teacher.*

I should add that every student comment found in the report was extremely positive. The students respected and admired Brian for his teaching talent.

4. Is there anything else you would like to mention?

I would like to mention that not only is Brian an exceptional instructor but an extremely bright and dedicated researcher. He is a pillar of my research group. His creative nature, remarkably strong mathematical background and experimental prowess will continue to take his research in new directions and uncharted territory. He has worked on both theoretical and experimental research projects spanning wireless power transmission, graphene, leaky-wave antennas and metamaterials. There is no doubt in my mind that he will land a faculty position at a prestigious US university, and have a storied research career.

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Background Information			
GSI's Name:	**Tierney**	**Brian**	**B**
	Last	First	Middle Initial
Course Number:	**EECS 230**		
Term:	☒Fall 2013	☐ Winter 2014	☐ Spring/Summer 2014
Your Name:	**Ganguly**	**Shamik**	**L**
	Last	First	Middle Initial
E-mail Address:	shamgang@umich.edu		
Type:	☐Faculty Recommendation	☒Student Recommendation	

Recommendation Questions

1. What makes this GSI an excellent instructor? Please provide specific examples.

Brian was a helpful, generous, and intelligent lab instructor. In lab, he gave helpful introductions to the material to prepare us to complete the lab smoothly and without unnecessary struggle, and gave us plenty of context behind the concepts and activities in lab so we would always know what class concepts the lab related to, how they apply to the real world, and what points the lab was trying to prove. He helped explain concepts and theoretical material in the lab so we fully understood both the purpose and the causes for what we were doing and observing. During the lab itself, he was very quick to solve logistical and equipment-related problems so we did not have to spend undue time on unimportant roadblocks. He was so approachable that I did not hesitate to ask him about anything that confused me in the slightest, whether it was a procedural or conceptual confusion. At times the lab served the dual-purpose of a hands-on laboratory and an office hour. He was ready to fully explain any take-aways from the lab experiences that we didn't fully grasp and to point out details about the results that we missed to augment our lab experience. He not only helped with lab concepts, but after we had finished lab, he was willing to stick around and answer any and all questions about concepts from class or the homework. When I was struggling with a concept and wanted to understand it fully down to first principles, I went to Brian first before my professor or my discussion GSI.

2. How does this GSI demonstrate creativity or innovation as an instructor? Please comment on her/his use of effective teaching strategies, creation of course materials, or other examples of creativity and innovation in teaching.

Brian's ability to introduce or clarify theoretical concepts right as we confronted them in lab was tantamount to our complete understanding the materials both in lab and in class. His explanations, timing, and perceptiveness of confusion were a great gift to us as students, because they allowed us to unify and comprehend all the difficult concepts we learned in 230. He also was proactive about setting up lab materials, handbook clarifications, and equipment in such a way that we were never floundering around and always clear about our task and prepared to efficiently complete it. I didn't encounter any problems that I normally do with confusing lab manuals and disorganized labs.

3. How does this GSI demonstrate dedication to student success (e.g., availability, explanations, responsiveness, rapport, etc.)? Please provide specific examples.

Brian went over and above his job requirement with his tireless responsiveness to our every question and confusion. He was constantly running around in lab trying to satisfy not only our needs but our hopes to understand the material at a higher level. He didn't need to sit down with me and clarify every little question I had about 230 material when his job was to make sure we completed the labs. Even though I was doing relatively well in the class and understood the material fairly well, he managed to help me push my understanding to an even higher level while still satisfying the needs of less successful students. Many instructors abandon successful students to focus on the more pertinent task of helpful struggling students, but he managed to see to both groups and therefore did not impede our exploration as many instructors do, but rather propelled it.

4. Is there anything else you would like to mention?

Brian is awesome.

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Background Information			
GSI's Name:	**Tierney**	**Brian**	**B**
	Last	First	Middle Initial
Course Number:	**EECS 230**		
Term:	☒Fall 2013	☐ Winter 2014	☐ Spring/Summer 2014
Your Name:	**Lawton**	**Maxime**	**E**
	Last	First	Middle Initial
E-mail Address:	melawton@umich.edu		
Type:	☐Faculty Recommendation	☒Student Recommendation	

Recommendation Questions

1. What makes this GSI an excellent instructor? Please provide specific examples.

In my mind, to be an excellent instructor a GSI must have a deep understanding of the subject being taught, be good at explaining it to his/her students, be available for questions, and be eager to interact and teach his/her students. For the semester in which I took EECS 230 with Brian Tierney as my GSI, he demonstrated to me that he holds all of these traits.

As the person teaching and running our labs, Brian began every class by demonstrating to all of us what we would be doing that day. This meant showing us what equipment we would need, as well as a demonstration of the assembled pieces and what we should be observing on the lab instruments. After this, he would open the floor for questions, answer them, and then allow us to do the lab ourselves. Walking around the room, he was always available for questions, whether on the theory behind that day's lab or a simple clarification of the procedure.

I have the habit of clarifying lab procedures down to their minutia, and so often end up asking many small and seemingly obvious questions. Always eager to help, Brian would respond almost immediately to my upheld hand by rushing over or asking me to wait while he finished helping someone else. Brian never dismissed my questions as silly or unnecessary, and always answered them respectfully and without sarcasm.

For one particular lab, the pre-lab was done at the beginning of class in the form of a quiz on the day's topic. After this quiz, Brian chose to go through the problem step-by-step and make sure that all of us understood the material, rather than having us go straight into the in-lab. He used this quiz as a means of forcing us the students to realize if we truly understood the material, and after clarifying points with us, he did not penalize us for being wrong initially. This resonated with me at the time, because if showed me that Brian is more interested in teaching than assessing; he cares more if we understand the material in the end than if we had to trip along the way. To me this is the mark of an excellent GSI: one who is more interested in his/her students' understanding of the topic than of their performance as they're learning it.

2. How does this GSI demonstrate creativity or innovation as an instructor? Please comment on her/his use of effective teaching strategies, creation of course materials, or other examples of creativity and innovation in teaching.

The class I had Brian as a GSI for (EECS 230) was Electromagnetics I for electrical engineers. In it, we learned about signal propagation along transmission lines, and Maxwell's equations as they relate to electrostatics and magnetostatics. The first three labs were basic introductions to the concepts learned in lecture. They served to familiarize us with the equipment used in the lab and the techniques used in analyzing the kinds of circuits described in lecture. As a GSI in charge of writing and maintaining the lab manual for the class, Brian wrote the last three of the six labs. In these, rather than continue to have us do menial labs to experience the concepts being discussed in lecture, Brian decided to make these labs a mini project. In them, we first became familiar with shielded loop resonators (loops of wire that produce magnetic fields), then learned how to magnetically couple them so as to induce current between them using magnetic fields, and lastly we attached a circuit with an LED to one loop and powered it wirelessly using another loop.

Creating these labs with the purpose of exposing us to the practical applications of the material learned in class, Brian did a lot to help us better grasp the theory taught in lecture. Understanding a concept can be difficult when only working out problems on paper or measuring unrealistic or contrived scenarios in the lab, but having an engineering task to complete (here it was to deliver power wirelessly to an LED) is very engaging for students and aids in the understanding of why something is done and how it affects a system. Even though these labs were fun, they still had us applying techniques learned in previous labs, and we had to not just power the LED, but do it as efficiently as possible. This meant working out equations to determine the correct frequency signal to use to power the system, distance between the loops, and loads used to achieve maximum magnetic coupling.

Completing the last lab and being able to see how all of our previous work contributed to a working system, was very gratifying for my group. When we called over Brian to have him review our work, we were very eager to prove to him how and why our system was correct, and in this I think Brian's labs succeeded. They managed to generate a sense of discovery and excitement in his students that encouraged us to be interested in fully learning the material and applying it in our work.

3. How does this GSI demonstrate dedication to student success (e.g., availability, explanations, responsiveness, rapport, etc.)? Please provide specific examples.

Brian held regular weekly office hours. He answered questions posed by students during his labs. His answers were always concise, to the point, and consistent with the material being taught in lecture. These are all expected of a GSI and are the bare minimum for one to be effective in the classroom. Where Brian excelled was in how he fielded and responded to questions posed by his students.

As I mentioned in the first question, I tend to ask a lot of esoteric questions related to procedures and curricula. On multiple occasions, I ended up writing up my lab reports a day or two before they were due, and thus encountered many small details that I needed clarification on. For these, I would e-mail Brian a short sentence or two, and he would respond within the hour. For some assignments, we would end up with a 20+ chain of e-mails, extending well into the night and past expected work hours. This showed to me the dedication that Brian had to his job as an instructor, and to helping me succeed personally.

Brian's explanations also went beyond the base requirements. In response to a technical question, he would always give some form of background on the subject if the question was specific. This might be as simple as writing down an equation or a restating a principle. He would follow up his explanation by confirming that everyone understood, and if not, he would delve more deeply into the topic. If a question had been asked and answered in private, Brian would sometimes send out an explanation to the rest of the class to make sure that everyone was on the same page.

His attention to detail and feedback also went into his grading. On all of the lab write-ups that I turned in, when I got them back they would be marked up with highlighted sections where Brian would give a short follow-up to the answer in question, elaborating if I had not gotten it quite right, or congratulating me on a good response if I had.

4. Is there anything else you would like to mention?

I had Brian as a GSI a year ago, and during that semester he reached out and formed a good relationship with each of the students in my lab group. Often with GSIs, they may remember you for a semester after the class, if they knew you during the class at all. With Brian, he took it upon himself to get to know his students, and it shows. Even after a year, whenever I go into the GSI study room for office hours, if I see Brian we will always say hi to each other. It may not seem like much, but forming relationships between graduate and undergraduate students is an important part of the GSI program, and in this Brian excels.

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Background Information			
GSI's Name:	**Tierney**	**Brian**	**B**
	Last	First	Middle Initial
Course Number:	**EECS 411**		
Term:	☐Fall 2014	☐ Winter 2014	☐ Spring/Summer 2014
Your Name:	**Sukhnandan**	**Ravesh**	**R**
	Last	First	Middle Initial
E-mail Address:	ravsukh@umich.edu		
Type:	☐Faculty Recommendation	☐Student Recommendation	

Recommendation Questions

1. What makes this GSI an excellent instructor? Please provide specific examples.

In my experience, GSIs in engineering at Michigan generally try their best to assist students. What makes Brian so special is the confidence he has when explaining and answering questions. This is allied to his tremendous depth of knowledge in all things Electromagnetics: antennas, microwave circuits, optics and electromagnetic theory. He is exceptionally talented and knowledgeable about Electrical Engineering, but unlike many individuals with a predisposition towards technical subjects, he is able to articulate his thoughts and the course's concepts very fluidly, and in a way that the majority of individuals in the class can understand.

To illustrate his breadth of knowledge, I can simply say there is not a question – either proffered by myself or someone else in the class – that he has been unable to answer. Furthermore, EECS 411 is a class whose audience is of varying skill levels: there are graduate students with significant experience in applied electromagnetics who take this course out of interest, as well as undergraduates like myself who take this class to satisfy EECS' major design requirements. This class also has a significant lab component, and as the only GSI, Brian must even proctor and supervise all the lab sessions. In all likelihood, he spends an inordinate amount of time related to this course. Yet, he is always easy going and ready to respond to our questions and inquiries with admirable patience.

Outside of his obvious technical knowledge and expertise, Brian also seems to have a life not related to research and engineering, giving him a well-balanced outlook on life that makes it easy to converse with him and get to know him, which is essential in maintaining student interest in the course and feeling comfortable.

2. How does this GSI demonstrate creativity or innovation as an instructor? Please comment on her/his use of effective teaching strategies, creation of course materials, or other examples of creativity and innovation in teaching.

As an undergraduate, Brian obtained dual degrees in Mathematics and Electrical Engineering. His background in mathematics is apparent in the way how he usually begins explaining things with an emphasis on the theory and the fundamental principles behind the concept being explored in class. However, unlike the stereotypical engineering professors who would present a proof to an audience of students bewildered at not only the mathematical minutiae required in theoretical analysis, but also the ultimate importance of going through such theoretical exercise, Brian ensures at each step of his explanations to provide adequate grounding in real situations so that the student can relate to the physical significance of what is going on.

This ability to bridge the gap between theory and application in an accessible way further extends to his responsibilities of overseeing the EECS 411 laboratories. I truly believe that Brian is the only GSI in the COE who not only must answer homework questions, which are normally theoretical and formula based, but also has such a great responsibility in answering lab questions which is very much computer simulation and data-analysis based. Because he is a centralized resource for both theoretical and practical questions and applications in this course, it becomes much easier for the student to bridge the gap between application and theory as Brian knows both domains very well and can explain them both very well. For instance, when designing a microwave circuit on paper, one doesn't have to concern oneself with the actual biasing of the circuit, because it is assumed to work perfectly. When implementing this in the lab, however, the DC biasing needs to be eliminated, so DC filters (like large capacitors) need to be used. Brian is constantly explaining small things like that which. Obviously, this is uncommon in even some Engineering Professors, not to mention GSI's, because many forms of engineering research has a larger focus on theory than experiment or vice-versa.

Furthermore, he is frequently asked to step in for professors when they are travelling or unavaible and deliver lectures, which he does with aplomb because of his ability to explain difficult concepts using a mixture of drawings, graphs, theory and how it all relates to a real world scenario.

3. How does this GSI demonstrate dedication to student success (e.g., availability, explanations, responsiveness, rapport, etc.)? Please provide specific examples.

Brian is very responsive to student's questions, and he is always available for contact by email, which he responds to fairly quickly. During office hours, he is willing to stick around a bit longer than he should if a student requires help with an issue or if students are engaging in conversation with him. Brian also seems to have a lot of interests outside of academia such as playing and watching sports, card and board games etc., and so it is easy to build a rapport with him because of these shared interests. For instance, after office hours recently, we played some ping-pong, at which he is rather good!

I will also say that he is very understanding of students' situations, and is always willing to extend a homework assignment or reschedule a lab date, provided you have a valid reason.

4. Is there anything else you would like to mention?

I have had Brian for both EECS 230 and EECS 411, and he is undoubtedly one of the best teachers I've had, whether it is Univ. of Michigan or elsewhere. Frequently, me and my friends are astounded with the ease with which Brian answers questions quickly, and as I've stressed, his abilities to guide students in practical lab sessions as well as in a more theoretical class room setting is unparalleled, and this all-encompassing knowledge is propagated to students because of the manner in which he conveys his thoughts using diagrams, equations and real world examples. For instance, the Smith Chart is a very useful tool in EMAG when dealing with transmission lines. Brian uses the Smith Chart extensively to explain concepts that would be tedious and cumbersome to explain using equations alone, because the Smith Chart is a graphical tool and is much more intuitive.

I sincerely hope that he wins the award because he is honest, hardworking and reliable, in addition to his technical expertise. He is the embodiment of what a Michigan GSI should be, and for that, I am eternally grateful. I hope he gets the recognition that he deserves.

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Fall 2013 Final
13 students responded out of the total enrolled 13

Instructor with Comments Report

2013-11-28 - 2013-12-12 Report ID: MSR04734

Instructor: Tierney,Brian
EECS 230 011

		Responses from your Students**							Other Users of This Item*					
									University Wide			School/College		
		5 SA	4 A	3 N	2 D	1 SD	NA	Your Median	75% Above	50% Above	25% Above	75% Above	50% Above	25% Above
771	The instructor was available throughout the designated laboratory hours.	10	3	0	0	0	0	4.85	4.50	4.72	4.88			
772	The instructor thoroughly understood the subject matter.	11	2	0	0	0	0	4.91	4.27	4.56	4.79			
773	The instructor was sensitive/patient to the level of student comprehension.	11	2	0	0	0	0	4.91	4.25	4.60	4.77			
774	The instructor explained the material clearly and understandably.	11	2	0	0	0	0	4.91	4.17	4.50	4.72			
775	The instructor had no English language problem.	10	3	0	0	0	0	4.85	4.40	4.75	4.90			
776	Overall, the instructor was effective.	11	2	0	0	0	0	4.91	4.23	4.57	4.75			

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Fall 2013 Final
11 students responded out of the total enrolled 14

Instructor with Comments Report

2013-11-28 - 2013-12-12 Report ID: MSR04734

Instructor: Tierney,Brian
EECS 230 013

		Responses from your Students**							Other Users of This Item*					
									University Wide			School/College		
		5 SA	4 A	3 N	2 D	1 SD	NA	Your Median	75% Above	50% Above	25% Above	75% Above	50% Above	25% Above
771	The instructor was available throughout the designated laboratory hours.	11	0	0	0	0	0	5.00	4.50	4.72	4.88			
772	The instructor thoroughly understood the subject matter.	11	0	0	0	0	0	5.00	4.27	4.56	4.79			
773	The instructor was sensitive/patient to the level of student comprehension.	11	0	0	0	0	0	5.00	4.25	4.60	4.77			
774	The instructor explained the material clearly and understandably.	11	0	0	0	0	0	5.00	4.17	4.50	4.72			
775	The instructor had no English language problem.	11	0	0	0	0	0	5.00	4.40	4.75	4.90			
776	Overall, the instructor was effective.	11	0	0	0	0	0	5.00	4.23	4.57	4.75			

University of Michigan
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Fall 2013 Final
14 students responded out of the total enrolled 14

Instructor with Comments Report

2013-11-28 - 2013-12-12 Report ID: MSR04734

Instructor: Tierney,Brian
EECS 230 014

		Responses from your Students**						Your Median	Other Users of This Item* University Wide			Other Users of This Item* School/College		
		5 SA	4 A	3 N	2 D	1 SD	NA		75% Above	50% Above	25% Above	75% Above	50% Above	25% Above
771	The instructor was available throughout the designated laboratory hours.	11	3	0	0	0	0	4.86	4.50	4.72	4.88			
772	The instructor thoroughly understood the subject matter.	11	3	0	0	0	0	4.86	4.27	4.56	4.79			
773	The instructor was sensitive/patient to the level of student comprehension.	11	3	0	0	0	0	4.86	4.25	4.60	4.77			
774	The instructor explained the material clearly and understandably.	10	4	0	0	0	0	4.80	4.17	4.50	4.72			
775	The instructor had no English language problem.	11	3	0	0	0	0	4.86	4.40	4.75	4.90			
776	Overall, the instructor was effective.	11	3	0	0	0	0	4.86	4.23	4.57	4.75			