

COMPILED 2014 TEACHING PRIZE NOMINATION MATERIALS  
ON BEHALF OF CLARICE D. AIELLO  
(REPRINTED WITH PERMISSION)

To Whom It May Concern:

Right off the bat, I'd like to say that Clarice has been the best TA that I've had for any class during my time here at MIT. To put that into perspective, this is my fifth and final year of MIT - meaning that I've had about (roughly 1TA per class \* 5 classes average per semester \* 10 semesters) 50 TA's during my tenure here. It's fair to say that I've had pretty good luck in terms of quality when it has come to TAs. I'd say that on a quality scale from 1 to 100, with 100 being phenomenal, uncompromising quality, my average experience has been around 82 (about 9 not terribly great TA's out of 50). The spread of the distribution around this rather high mean, as one would expect from a quality institution, is narrow, save for one rare outlier, Clarice. Sitting somewhere around three standard deviations above the mean, Clarice has earned that distinction for her dedication not only in presenting and dissecting the subject matter of 6.728, in a more than user-friendly fashion, but also for her individual dedication to every student in the class.

Ever present for lecture and having great intuition for the presentation of the subject matter, Clarice would take note of concepts that were not presented with utmost clarity during class and she would make it a point to restate them during her recitations. The same goes for theoretical concepts with mathematical subtleties; she would point out the nuances present within details of the arguments instead of waiting to bring them up when someone happens to stumble over them. This is, in my opinion, a pedagogically superb tactic for teaching upper division courses where mathematical and logical rigor becomes a great deal more critical. It is also not a tactic often employed by many TAs that I have encountered, since it requires some amount of time for careful consideration of the presentation of the facts and the facts themselves. However, Clarice made it her imperative to do so.

During numerous occasions throughout the semester in which I took 6.728, the question of whether Clarice is always at her computer, fervently waiting for inquisitive emails to respond to, had crossed my mind. Looking through all the correspondence between Clarice and myself through email, I found that the latest response time between me sending her an email and Clarice responding was 31 minutes. That to me is outstanding. More often than not, I find myself waiting at least half a day before a TA gets back to me on topics as trivial as the meaning of a particular mathematical symbol in an equation. Having quite the academic load that semester, having my questions answered so quickly allowed me a greater amount of sanity that I would not have had otherwise.

In a similar vein, whenever a question in recitation would pop up that she did not know the answer to, she would always take the effort to research the question, find a suitable way to present it, and email her findings to the class. Most often, the questions weren't exactly crucial to assignments, but rather curios relevant to the subject in general. These questions were given equal weight by her and many interesting notions were fleshed out, giving the experience of the subject matter a greater breadth and personal character.

Lastly and, in my opinion, most importantly, Clarice went above and beyond the call of duty by establishing positive interpersonal relationships between herself and the individual students of 6.728. It's great when you know you have an aid that can relieve your academic anxieties, but it's even better when they project a warm, friendly, and enthusiastic attitude whenever you go to them for help. I always found myself having convivial small talk with Clarice just before class or recitation. Her rhapsodic demeanor would actually perk me up for class. It was quite infectious. Moreover, her sensitivity to individual issues is equitably another of her laudable virtues. When my grandmother (the equivalent of a mother to me) passed away mid-semester, I not only felt comfortable bringing up the issue and its subsequent effect on me and my work, I also got a very sympathetic response. Sometimes interpersonal interactions surrounding issues such as these can have an unfeeling sentiment here at MIT, but I definitely felt like there was another human being at the other end of the line. I can only imagine that, with

all the 'slings and arrows of outrageous fortune' ricocheting around a room full of adults with academic as well as personal preoccupations, she handled all such situations with the same level of receptiveness that she showed me.

For these reasons and many more that lack enumeration, I strongly believe that Clarice should receive the Goodwin Medal for her excellence as a TA for 6.728. She has definitely proven to me, through her dedication to the subject matter, her students, and the erudition of her students, that she is someone who is "conspicuously effective over and above ordinary excellence."

Sincerely,  
Luis Carlos Gil

Monday, February 24, 2014

To Whom It May Concern:

Clarice Aiello was my teaching assistant last semester for Applied Quantum and Statistical Physics – 6.728. It is safe to say that she is the best TA I have ever had, both in my undergraduate and graduate studies. Clarice's dedication to teaching and her care for students was manifest throughout the semester, and I can think of no individual that I have known more deserving of the distinction of the Goodwin Medal. Indeed, her teaching performance was consistently "conspicuously effective over and above ordinary excellence."

Talk to Clarice for a few minutes and you will find someone warm, enthusiastic, engaging, and discerning. Talk to her for a half hour and you will learn something new and fascinating, and even feel competent sharing it with someone else. This quality was especially crucial to 6.728, an introductory applied physics course in which not all students had previously encountered quantum mechanics. Clarice was there to bring them up to speed.

From the first day's lecture I could tell that Clarice would be an exceptionally responsible and responsive TA. Attending every lecture except when traveling or sick, she took over from Professor Peter Hagelstein at the end of class, confidently alerting us of any new course announcements or emails we would be receiving. Her emails were simultaneously scrupulous, succinct, and even fun, admittedly a difficult balance to attain; never once did she fail to respond to emails by the end of the day during the week or within twenty-four hours during the weekend.

Her real asset as a TA came during recitations and tutorials, which she held for hours on end two days per week, often repeating material to insure that students truly understood it. A testament to this was her often-asked question, "What don't you understand?" For Clarice, transfer of knowledge was more important than communication of knowledge. This was equally evident in her meticulously crafted problem set solutions, clarifying notes on portions of the course material, and supplementary MATLAB and Mathematica scripts written to illustrate the intuitive nature of seemingly complex problems.

I cannot endorse Clarice Aiello enough for the Goodwin Medal.

With my highest recommendations,



Aaron Smargon

Masters Student  
Department of Electrical Engineering and Computer Science  
[asmargon@mit.edu](mailto:asmargon@mit.edu)

Dear Goodwin Teaching Medal Committee,

It is my utmost pleasure and a privilege of a lifetime to write this letter in support of Clarice Aiello's nomination for the Goodwin teaching medal. Clarice means so much to me as a teacher and dear friend. It is such a wonderful opportunity to be able to return her never-ending kindness in the form of my utmost support to her for this award. I have had many wonderful teachers and mentors throughout my lifetime who have been instrumental for my achievements today. However, Clarice skyrocketed my standard for teaching so much so that she will forevermore be the golden exemplar of teaching excellence in my mind. Never before have I had a TA like Clarice who combined absolute mastery of the material with the unconditional selflessness to place her student's learning above everything else in her world. Clarice was the shining light that guided me across the challenging odyssey known as 6.728, Professor Hagelstein's Applied Quantum and Statistical Mechanics course.

Clarice's dedication as an educator is best exemplified by her devotion to tutorials and office hours in 6.728. She not only held a total of 6 hours' worth of official tutorial sessions, but she had unofficial office hours whenever students needed additional help after the tutorial sessions, which easily accumulating to at least 10 hours of teaching and assisting students each week in a classroom setting. It was her goal to never leave students with questions in their mind, or else her day's work was not complete. Not only that, she always responded to emails within an hour or two (if it is before 9 pm). Furthermore, she had a questionnaire at the end of every tutorial in which students could give feedback on things they thought were effectively explained in tutorial, what they still had questions on, and what they hope could change for future tutorials. This is just the top of the iceberg in demonstrating Clarice's commitment. Never before have I had a TA who devoted so much voluntary time into helping students. She was constantly adapting her teaching to the student's needs and responded to students' feedback. She even personally thanked students for constructive inputs and suggestions on what she could incorporate into her teaching. My classmates and I often wonder how Clarice could devote so much time and still take classes and make a huge impact in lab work. The only rational explanation is that Clarice's unrivaled teaching spirit gives her superhuman time management abilities.

Clarice's unparalleled time commitment to 6.728 was equally matched by the effectiveness of her teaching. She was great at explaining pertinent background information and motivation behind problems on assignments. She trained us to think through the problem so we could tackle on any problems in the future. This helped us to not be confined to knowing very specific problems only. Furthermore, she helped students understand how to directly apply class materials to their own research problems. She had a genuine interest in hearing about her student's research challenges and giving advice on it, even though it is not in her official job description as a course TA. Although 6.728 was a challenging course, especially since I had no prior quantum course as an undergraduate, Clarice was paramount in helping me understand the material and applying the knowledge to my lab work. She was always approachable and made it easy to ask any questions, no matter how elementary or difficult it may be. She treated her students as equal peers, was always polite, and made everyone feel that their questions and opinions were highly valued.

I have only touched upon 1% of the amazing work Clarice did as a TA in 6.728 without making this letter too long. Simply put, Clarice is a natural mentor and teacher. She is a great role model and leads by example through her hard work, going above and beyond each and every day. Although Clarice is an expert in quantum physics, she is very humble and demonstrates that

no matter how much you know about a subject, there is always something new to learn about it and the pursuit of knowledge is an endless process. Even when she does not know the answer to a question student poses, she eagerly seeks out the knowledge herself to later teach it to others, rather than taking the easy route of simply saying she does not know. That is something I have never seen in anyone else and is easily Clarice's most noteworthy trait. I genuinely hope that Clarice will be the winner of this year's Goodwin teaching medal as I cannot think of anyone more deserving than her. For all the time, hard work, and dedication she invested into teaching her students, the Goodwin teaching medal would be the perfect recognition.

Sincerely,  
Tsung-Ju Lu  
PhD student in MIT EECS

February 28, 2014

To Whom It Concerns:

I nominate Clarice Aiello to receive the Goodwin Medal for exceptionally excellent teaching.

In the fall of 2013, I was her student in 6.728. Clarice was always welcoming and always ready to help. Coming to her class, I was always sure Clarice would be intimately familiar with all the material, know which parts were likely to confuse us, and have a clear strategy to explain each confusing concept. She was always prepared to explain the key concepts at a level everyone could understand, but also always ready to entertain more advanced questions and conversations.

Of course, I can speak best about how Clarice treated me. I am in my second year at MIT and continue to struggle here, and 6.728 -- to put it mildly -- overwhelmed me. I deeply appreciate how supportive and accommodating Clarice was for me. It was difficult to ask questions in class when I felt behind, and embarrassed about being behind, so Clarice made a point to work with me one-on-one during office hours, via email, over the phone and via Skype. In these conversations, she was reliably patient and encouraging. When I was not checking in with her, Clarice made a point to check in with me. That is, when I felt too overwhelmed and discouraged to seek help, Clarice would let me know she believed in my ability to succeed and that my questions were important.

Throughout the semester, I was always impressed by and grateful for her knowledge, dedication, and kindness. I nominate Clarice for the Goodwin Medal, and believe with absolute conviction that she deserves this recognition.

Sincerely,

S. Leigh Heathcote

## **Supporting Letter for Clarice D. Aiello**

I am a second year Ph.D. student at MIT EECS. Clarice was my teaching assistant when I took the subject 6.728 Applied Quantum and Statistical Physics during the Fall 2013 semester. I have to say that Clarice really did a fantastic job as a teaching assistant. Actually, for me, I have met so many teaching assistants since I became a student. Clarice is definitely the best one I have ever seen.

I feel very lucky that I could have Clarice as my teaching assistant during Fall 2013. That class was very tough and the problem sets were very hard. Clarice was very supportive and considerate. She knew everything about the class and she would love to help me whenever I had questions. She even had a SKYPE talk with me at late midnight when I had a problem about the Pset. Clarice was very patient. That class was difficult. She always talked with us about our questions time and time again until we fully understood the questions. Clarice was a very responsible TA. She had almost tutorials and office hours for 15 hours per week. She was never late for one time during the whole semester.

In one word, Clarice is the best TA I have ever seen. I sincerely hope that you could consider her for the Goodwin Medal this year. Please feel free to contact me in case you have any question. Thanks.

**Siyuan Lu    02/26/2014**



March 1, 2014

Dear Goodwin Medal selection member:

I would like to add my support for the nomination of Clarice Aiello for her excellence as a teaching assistant. As a student of hers during the Fall 2013 term, I saw first-hand how hard she worked to ensure all of the students succeeded in a challenging course. Clarice went above and beyond what is expected from most teaching assistants, making a demanding course manageable while adding to the material learned. Thanks to her weekly guidance, I not only got the grade I desired, but I also walked away with a deeper understanding of quantum mechanics and its applications.

For five semesters during my tenure at Iowa State University, I taught semiconductor fabrication and VLSI circuit design labs. From my experience teaching weekly labs for 3-5 hours, I know how exhausting the process of teaching while being a student can be. If you wish to succeed at both, all of your time is spent wearing one hat or the other. It is difficult to care about the students seeking instruction when you have your own problem sets and lab reports to complete. Clarice must have a time machine because she appeared to have all the time and patience in the world for the students of 6.728 while still conducting her own research and taking classes. She never had a problem staying hours after our tutorials to answer lingering questions or answering emails late into the night.

Specific examples of her devotion show exactly how far Clarice went to ensure students learned the material and more. On a weekly basis, tutorials were held on Monday and Tuesday. They were scheduled approximately 1-5pm, but often ran until 6pm or later as she helped individuals having difficulties with certain concepts. On a minimum, she likely spent 15 hours a week in class or recitation, which doesn't include grading or preparation. Besides that, Clarice was *always* available via Email. She would often respond to questions I had within minutes at any moment of the day, minus when she was in class. I don't know how she found the time, but I am truly grateful for all of it.

Clarice was far and away the best TA I have ever had in any class of my 7 year collegiate career. I would not take the time to write this letter in support of her nomination if this was not the case. The fact is, I respect the amount of work she put into teaching, and I think she deserves the accolades for the hundreds of hours she devoted to a group of students she may never interact with again. Clarice is a prime example of the excellence that is fostered at MIT and the Goodwill Medal couldn't go to a more deserving person.

Sincerely,

Brian Modtland

February 20, 2014

To whom it may concern,

My name is Kevin Bagnall, and I am a Ph.D. candidate in the Department of Mechanical Engineering at MIT. I am writing a letter of support for the Goodwin medal on behalf of Clarice D. Aiello, who was the teaching assistant for the course I took, 6.728 Introductory Applied Quantum and Statistical Physics, in Fall 2013.

Clarice was a wonderful TA who made our learning her first priority. Although quantum mechanics is known to be a perplexing subject, Clarice worked hard with Prof. Hagelstein, the course instructor, to give clear explanations of difficult material. In addition to hosting regular office hours, she developed a homework “tutorial” time of several hours per week in which we discussed the homework problems in a small group. I found this time particularly helpful because I could ask her and other students detailed questions and clarify difficult issues. Each time, Clarice asked us to fill out “muddy sheets” in which we described the items that we still didn’t understand and she tirelessly provided resources for us to study. Before the final exam, she hosted lengthy review sessions and made herself available for questions for a long period of time. In summary, Clarice went far beyond her required duties as a TA in order to help us learn a difficult and sometimes frustrating subject.

Although Clarice was certainly helpful in understanding the technical aspects of the course, what I really appreciated was her kind attitude and humble personality. Even though she is very bright, she never acted aloof and she made a way for all of us to enter into the course material. Clarice was kind and respectful toward all of the students in the class and made it a point to get to know each one of them. I strongly recommend Clarice for the Goodwin medal as a recognition of her commitment to great teaching and her devotion to her students.

Please feel free to contact me should you have any other questions regarding Clarice’s nomination.

Regards,

Kevin Bagnall  
kbagnall@mit.edu

February 28<sup>th</sup>, 2014

To whom it may concern,

I am a junior majoring in electrical engineering and computer science and Clarice Aiello was my teaching assistant for 6.728 (Applied Quantum and Statistical Physics) in Fall 2013. I came into this graduate class without any background in quantum physics and wouldn't have been able to complete the class successfully without Clarice's support.

Clarice's weekly tutorials consisted of interesting and thought-provoking discussions which were useful in getting a deeper understanding of the material. While Clarice herself demonstrated a thorough knowledge of the material, if she was asked a question that she was unsure about, she would check the literature or discuss with Professor Hagelstein and promptly get back to students. She regularly posted well-written notes and detailed homework solutions. She also took the initiative to provide additional materials beyond the scope of the class for students who were interested in exploring an area in greater depth.

Clarice was extremely committed to making sure that her students were successful. She often had indefinite office hours until the last student was satisfied. She also promptly responded to emails - on several occasions, I emailed Clarice late at night and would wake up to find a thorough response in my inbox.

I can undoubtedly say that Clarice is the best teaching assistant I have ever had. I highly recommend Clarice Aiello for the Goodwin Medal. Thank you for your consideration.

Sincerely,

Pranav Kaundinya

I would like to nominate Clarice for the Goodwin Medal. She's the best teaching assistant I've ever had, and could ever hope for.

Quantum mechanics has always been somewhat elusive to me. Clarice's master of the subject, manifested in her teaching, thus amazed me. She often explained difficult concepts in a surprisingly clear and organized manner. I wondered how earnestly she must have prepared for the tutorials in order to give such quick and lucid answers to every question of mine.

Yes, I asked a lot of questions. Clarice was never tired of them. She always greeted my questions with a smile, and encouraged more. Like every great teacher in my life, she emphasized on assimilating concepts rather than just solving specific problems. Her help gave me an additional push on my way to think through the subject on my own.

I'm truly grateful for Clarice's excellent teaching, and would be thrilled to see her receiving the Goodwin Medal. She definitely deserves it.

Mengfei Wu  
mwu1@mit.edu

I do not usually write recommendation letters. As a grad student, I have had few occasions in which to formally recognize the excellence of the individuals around me. Thus, when prompted to write this letter recognizing Clarice's teaching ability, I needed little further impetus. Clarice was amazing. Her command of the material was superb, and I felt this talent came from the passion she showed toward helping her fellow grad students. She was always available, and taught in such a way that never made you feel like you were being talked down to, or simply a medium in which she was displaying her intelligence. Her command of the material was only matched by her willingness to go the extra mile. Whether that be, typing up the lecture notes, posting her mathematica code for students less familiar, or simply responding quickly to emails.

She was a friend of the students. You could always count on her to advocate on behalf of us, a trait that is direly needed to survive Prof. Hagelstein's Applied Quantum and Statistical Mechanics course.

***Christopher Foy***

I will always remember, stopping Clarice after class and having a long discussion on the exact meaning of Rabi oscillations. I was interested in whether you could see Rabi oscillations from a permanent magnet. We must have had a 40 minute discuss on first the meaning of the term, then if it was possible. She walked me through the math and helped me consider multiple perspectives. I can firmly say that she should be your choice for the Goodwin Medal.

***Mihir Pant***

I will always remember the time I was having trouble convincing myself about a certain approach used in the notes for the class. Clarice went out of her way to talk to Professor Hagelstein and several emails later she had a clear explanation ready for me. I feel that such extraordinary motivation on part of a TA certainly deserves recognition.

***Cheng Peng***

Clarice is undoubtedly the most responsible TA I have had for my courses. The combination of her passion for teaching, her understanding of the subject, and her willingness to help makes her an indispensable part of the course "Applied Quantum and Statistical Mechanics". The standard recitation session for each course is normally one hour per week, but Clarice voluntarily devoted two afternoons to six one-hour tutorial sessions, so that each session could have fewer students and people could have a better discussion. She also promised to reply emails sent to her before 9pm by the end of the day, and emails sent to her after 9pm by the end of the next day. No matter what questions we had, directly related to the course or not, we were guaranteed a satisfying answer, and we never had to wait for long. Her passion for the subject, for teaching, and for life as a whole influenced me in a positive way. To me Clarice is not only a TA, but also a great role model. I sincerely hope she could be considered for this year's Goldwin medal.

***Carson Teale***

Clarice is certainly the most devoted and motivated TA I've ever had for a class, whether in graduate school or undergrad. She puts in an enormous amount of effort to ensure that all of her students have a thorough understanding of the material. Clarice went

out of her way to help me on multiple occasions. She spent many extra hours with me discussing my final project for the class, which was related to her research. She gave me sample code that she had written to help me get started and also discussed results from papers and different techniques used for simulations, none of which was at all part of the curriculum for the class. She made it a priority to make sure that I understood everything about my project even though it was outside of the usual scope of the class. I cannot imagine a more deserving person for this award.

Letter

I am writing to you to express my wholehearted support for Clarice Aiello, nominee for the 2014 Goodwin Medal. I am currently a 2<sup>nd</sup>-year Ph.D. candidate in the Chemical Engineering Department and had an honor to be one of the students taught by Clarice in Fall 2013 Course 6.728.

Since the beginning of the course, I felt Clarice's enthusiasm and determination toward learning and teaching. Her teaching style is interactive, multi-disciplinary, highly considerate. Interactive part comes from the fact that she would always ask us how we approached a problem and what is the part what we had trouble in solving the problem. I really appreciated this type of teaching because it emphasized understand the concept behind each problem while addressing individual student-based needs. The multi-disciplinary teaching style derives from Clarice's passion to not only cover the topics taught in the course, but shedding light on applications of those materials in the context of current research topics in the Quantum community. From a student whose major is not Electrical Engineering or Physics, I found it fascinating that she introduced challenging research topics in a digestible manner to us by relating them to the course material. Lastly, Clarice was highly considerate, and her selfless persona was evident in the way she conducted her recitations. For example, there were days when she was TA'ing from 1 pm to 9 pm (four recitations back to back) without anybreaks because she was so busy addressing everyone's questions/comments even past the recitation time, whose last section was supposed to end by 5 pm.

All in all, I cannot think of a better person than Clarice who deserve this teching award, and I sincerely hope that her passion for teaching and learning is will be acknowledged.

Elizabeth Lee  
emyl3196@mit.edu

3/4/2014

### Letter in support of the nomination of Clarice D. Aiello for the Goodwin Medal

Clarice is a graduate student in the Center for Ultracold Atoms, and I am the director. I want to highlight her enthusiasm and dedication to outreach. She has outstanding abilities both in communicating science and organizing events.

As an NSF funded Physics Frontier Center, the CUA engages in outreach to the general public. Last year, when the idea came up to participate in the Cambridge Science Festival and have a "CUA Kids Day", Clarice immediately took charge.

She became the main organizer of the event. Most outreach activities in our Center have been organized by faculty, but this one was run by a team of graduate students organized by Clarice. The kids were divided up in several groups and cycled through lab tours, liquid nitrogen demonstration experiments, a tornado machine and an ion trap demo. Different graduate students took care of the different activities. Clarice organized the logistic in a superb way. In addition, she built herself two of the demonstrations. One was a tornado machine which created a mini tornado in a classroom demonstrating angular momentum and the physics of vortices. The other one demonstrated the principle of ion trapping by electrically levitating small particles. The CUA Kids day was a full success. The spirit of the day was captured in two videos which are now featured on the CUA website.

<http://cuaweb.mit.edu/Pages/Video/Page.aspx?Videoid=23267>

<http://cuaweb.mit.edu/Pages/Video/Page.aspx?Videoid=23270>

The CUA will keep both demonstrations and use them again – they are of high quality, both pedagogically and technically (i.e. they really work). This year, Clarice is organizing a similar event and will transfer the relevant know-how to the next generation of graduate students.

In conclusion, I strongly support the nomination of Clarice for the Goodwin Medal. In twenty years, I have not seen any other graduate students with such a commitment and infectious excitement for outreach.

With best regards,

A handwritten signature in black ink that reads "Wolfgang Ketterle".

(Wolfgang Ketterle)



**Letter of Support of Clarice D. Aiello  
for the  
2014 Goodwin Medal Award**

Building 5-122  
77 Massachusetts Avenue  
Cambridge, MA 02139

tel: 617.253.2850  
fax: 617.258.8792

<http://web.mit.edu/tll>



I am writing in support of Clarice D. Aiello for the 2014 Goodwin Medal Award.

I first met Clarice during the fall of 2008 when she was a student in my section of the Teaching Certificate Program. In this workshop-styled program participants read the literature on a range of topics related to teaching and learning,[1] and then discuss the readings – and work on assignments with peers from across the disciplines. In a class full of MIT science and engineering graduate students - who are all interested in teaching and learning - Clarice stood apart due to her insights, her enthusiasm, her experiences and her commitment to undergraduate education. In all the sessions, Clarice was able to combine what she learned from the literature with her experiences in the classroom (as both a student and an instructor) to provide insightful observations and invaluable perspectives on the topics under discussion. In one of Clarice's assignments, she wrote:

"Good teaching is about committing. I therefore commit to:

- clearly setting policy rules and sticking to them
- bearing in mind that students are beginners
- asking for feedback
- being as clear as possible
- admitting my own limitations
- admitting the limitations of the subject
- adapting in lecture
- placing myself as a dependable reference
- getting personal"

These sentiments were written in 2008 - *very early* in Clarice's tenure as a graduate student. Yet, I believe that they show a great deal of understanding of teaching & learning, and a deep respect for her students as learners and as individuals.

In addition to the Teaching Certificate Program, I also have had the pleasure of working with Clarice as a member of MIT's TALE (Teaching and Learning Ensemble)[2] – a group that I direct. TALE is made up of MIT graduate students, post-docs and staff members who perform sketches that depict issues and situations in academe. We usually perform at New TA Orientations, and other "new instructor venues".

Clarice usually portrays plays the "off-topic" student in the sketch entitled, "Scenes from a Recitation". She brings insights as well as humor, from her experiences from her experiences as a TA to the role.

Most notably, she always portrays her characters as being intensely enthusiastic about the topic (albeit, a bit off-base). I believe that these characters are manifestations of Clarice's deep love of teaching and learning - together with the respect and appreciation that she has for MIT undergraduates. In addition, during the post-sketch Q & A - Clarice is always able to provide positive and supportive advice for new TAs and instructors - again, her love of teaching, and her respect for her students - shine through.

I can honestly not think of another graduate student (and I interact with ~100/year) that is more deserving of this Medal than Clarice. I wholeheartedly recommend her to you. Please do not hesitate to contact me if you would like additional information.

Sincerely,



Janet Rankin, Ph.D.  
Senior Associate Director  
TheTeaching & Learning Lab  
MIT  
Cambridge, MA  
02139  
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617.253.7559

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[1] Session topics include: Applying the Research on How People Learn, Designing a Course and Constructing a Syllabus, Constructing Effective Problem-Set and Exam Questions, Interactive Teaching & Active Learning, Enhancing Learning with Educational Technologies, Teaching in a Multicultural Classroom, Developing a Teaching Philosophy Statement, and a MicroTeaching Session.

[2] See: [www.mit.edu/jrankin/TAs/tale.pdf](http://www.mit.edu/jrankin/TAs/tale.pdf)

COMPILED 2010 TEACHING PRIZE NOMINATION MATERIALS  
ON BEHALF OF CLARICE D. AIELLO  
(REPRINTED WITH PERMISSION)

12 March 2010

Goodwin Medal Nomination: Clarice Demarchi Aiello

When taking a challenging technical class at MIT, the quality of the teaching assistant can have a significant impact on the value of the course. A good teaching assistant will help students effectively learn and retain the material taught in a course, and through clarification and explanation of the information delivered in lecture and reading, instill confidence in one's ability to apply that material outside of the classroom setting. On the contrary, a teaching assistant that does not actively work to ensure students understand the material misses out on the opportunity to reinforce the learning process and thereby increases the chance that students will understand the course material at only a superficial level.

Clarice Demarchi Aiello, a PhD student in Electrical Engineering, was not a good TA for the autumn course 6.728 (Introduction to Quantum Mechanics): she was an excellent TA. Clarice put in an extraordinary effort to ensure that students understood well the very heady material being taught in class. In addition to holding consistent office hours every week, she welcomed students to drop in when needed and would answer e-mail questions promptly and in detail. She has a professor-level understanding of the course material, but it is her ability to convey that understanding in a way that is accessible to students seeing it for the first time that is both impressive and invaluable to the learning process. She would literally not allow a student to leave her office until she was sure that the point in question was well understood.

When it comes to work ethic, Clarice also deserves praise. She poured herself into making sure the class was well-run and crisp. For example, all of the solution sets to homework and exams were typed up in meticulous detail and became tools of learning themselves. As mentioned earlier, Clarice put in a tremendous amount of time working one-on-one with students too, such that at times we were concerned that she was losing too much sleep on our behalf. Such dedication from a teaching assistant is, in my experience, quite rare.

In spite of the fact that the lecturer for the course was also exceptional, were it not for Clarice, many of my peers and I would have been lost from the start and (probably) unable to catch up. As it is, I learned a great deal from this class and consider it one of the better classroom educational experiences I have had as a graduate student at MIT. Clarice is a significant part of why I learned as much as I did. It is not an exaggeration to state that she is the best teaching assistant I have had in my seven years of post-secondary education, which is why I believe that she is deserving of the Goodwin Medal.

Sincerely,

Matthew Branham  
mbranham@mit.edu  
Department of Mechanical Engineering

Co-signed:

Maria Luckyanova – Department of Mechanical Engineering  
Sara Mouradian – Department of Electrical Engineering and Computer Science  
Sangyeop Lee – Department of Mechanical Engineering  
Jianjian (James) Wang – Department of Mechanical Engineering  
Hasan Korre – Department of Electrical Engineering and Computer Science

Dear Prof. Grimson and Prof. Lester:

I am Jing Wang, MIT ID 927321389, a first-year graduate student from Department of Electrical Engineering and Computer Science. I write this recommendation letter for Ms. Clarice Aiello, our teaching assistant in class 6.728 Applied Quantum and Statistical Physics, for her nomination of the Goodwin prize. My classmate, Matthew Branham, from the Department of Mechanical Engineering placed a nomination for Clarice, and I would also like to recommend her for this teaching prize.

Last semester was my first semester at MIT, and 6.728 was my first class here. I really appreciate Clarice's great help during the last semester. As an international student from China, I have no experience of studying in English before, and at the beginning of the semester I can only understand little of what the professor said. I was very worried about this until I participated the tutorials organized by our TA Clarice. In the tutorials, we really appreciated Clarice's great effort and dedication to help us. The students are organized into several small groups, and each group is assigned one hour for tutorial. However, due to the difficult nature of quantum physics, almost every time the tutorial is extended, but Clarice never complained. Finally it became a rolling over tutorial, in which Clarice was available in the classroom on Monday and Tuesday afternoon, going through all the problems, whereas students can stay there listening for many cycles until they understand all the problems. By using this method, Clarice can fully understand which part is difficult for students and clarify all muddy points before we leave. Matthew Branham and I were in the same group and we both learned a lot from those novel tutorials. On the other hand, I believe that this kind of tutorial is more difficult and time consuming for the TA, and it at least took her 20 hours per week to prepare those materials, present, and answer our questions.

The second point I would like to mention is the study notes, materials, and demos prepared by Clarice. She not only helped us during the tutorials, but also provided many useful notes or summaries on Stellar. If there is some prerequisite knowledge required in the problem sets which is not covered in the class, she will always put some notes on Stellar in advance to help us. Sometimes, if there is a question been asked by many students, she will also make a clarification on stellar to make sure that everyone has correct understanding or use the same convention. After each quiz, she provided review, solutions, and histogram statistics of the grades. At the end of last semester, I am really impressed by looking at the stellar of 6.728. Ten comprehensive problem sets, along with ten long, detailed but well organized solutions, numerous preparing materials for quiz and final, and lots of study notes, summaries, examples, demos, programs and so on.

Thirdly I would like to talk about office hour. Usually in my opinion, office hour is useless because TAs are very busy and they are not prepared. But this situation is not correct for 6.728. Clarice is always prepared to answer our questions at any time. Her office hour is quite long, more than one afternoon per week and even longer before quiz or final, and because of the schedule conflicts of different students, the office hour is usually extended. Moreover, I am sorry to say that some students, for example me, went to her office frequently and randomly but never during the office hour, and she never complained about this and answered my questions patiently.

Finally, I would also like to mention the problem set grading. The problem set is graded very carefully, not only to taking account for students' credits, but also providing helpful suggestions and comments. Sometimes in order to fully understand a problem, I wrote a quite long solution (tens of pages) and quite detailed discussion, and I thought the TA will not have enough time to look at it

carefully. However, when the problem set is hand back, I found that Clarice made careful comments and feedback. I feel that her grading is not merely to count our credit, but more importantly, she tried to teach us and interact with us during the grading. Reading her comments is very educational and helps me a lot to understand some comprehensive problems.

With the help of Clarice I got an A plus in 6.728 which was also my first class at MIT. I was encouraged and inspired by her effort and dedication, so when I heard Matthew Branham nominated her for Goodwin prize, I decide to write this letter to support her application. Finally from a point of view of a student, I think she is well qualified for this prize and I make recommendation without any reservation.

Regards,  
Jing Wang  
927321389  
EECS

To whom it may concern:

I am writing a letter in support of the nomination for Clarice Aiello for the Goodwin Medal. I have been a student at MIT now for over five years and have taken a countless number of classes, and Clarice stands out as one of the most memorable TAs I have ever had. I had the pleasure of taking 6.728: Applied Quantum and Statistical Physics in the fall of 2009 while she was the teaching assistant. From the first day of class, that was not a position that I envied given the conceptual difficulty of the subject material and the range of experience of my fellow classmates. There were students in the class that had never been exposed to quantum mechanics before, such as myself, to those that have had numerous classes on the subject. Clarice was left with the arduous task of bridging the gap between the various students' understanding. Her success at that undertaking was truly an accomplishment.

Every week I would walk into the classroom on Tuesday afternoons for tutorial and would be greeted warmly by Clarice's smiling face. One would never know that this was her third tutorial of the day where she had previously presented the same material answering the same questions, just with different students. The tutorials each consisted of about 6 people, and Clarice was single-handedly responsible for the tutorials of about all 40 students in the class. Effortlessly, she would transform what seemed like abstract and vague points the professor touched upon in lecture into simplified, tractable concepts. She was able to engage each of the students in the tutorial such that it never felt like another lecture, but almost a conversation. Clarice would begin by asking us very basic questions to gauge our understanding and carefully gauged our reactions so that no student felt left behind. There was almost a constant question and answer dialogue with both the student and teacher taking turns asking the questions. She fostered a teaching environment in which I never felt shy of asking too trivial of a question or attempting to answer a question even if I was not confident in my response. If you were incorrect, she would work with you for a couple moments to help you arrive at the correct response.

Outside of these scheduled group tutorials, Clarice was always willing to offer additional help, whether in the form of office hours or answering email questions in an unusually responsive manner. She was always quick to help others in understanding the difficult concepts, but also readily accepted her own mistakes. When she was unsure of an answer or a particular point, I would see an email from her a few hours later with a complete clarification. Unlike so many TAs I have experienced that are just teaching for the financial benefit and could not care less about the individual students, it was apparent that Clarice actually wanted us to learn and understand the material even if it meant that she herself had more work to do. It was clear from these interactions that not only did she love the material that she was teaching, but she also thoroughly enjoyed the act of teaching it.

Sincerely,

Batya Fellman

Mechanical Engineering Graduate Student

bfellman@mit.edu

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March 15<sup>th</sup> 2010

Dear selection committee:

I would like to recommend Clarice Demarchi Aiello for the Goodwin Medal. My name is Veronika Stelmakh and I am a first year graduate student in EECS. I had the pleasure of taking the class that Clarice was TA'ing last semester – Introduction to Quantum and Statistical Mechanics – and I can say with certitude that she is the best Teaching Assistant I've ever had. Every week, during recitation, she essentially gave us a lecture emphasizing the important concepts and how to apply them to our homework. She held these recitations four times a week so that all the students could attend without schedule conflict. She always replied to our emails within a couple of hours, even on weekends! She held additional office hours for those who needed additional help. To spark additional interest in quantum mechanics, she organized extra "lectures" where we could watch a video of an old lecture by Prof. Feynman, or she would explain us more on quantum information theory. She went above and beyond to ensure that all the students understood the material enough to do well on the homework and exams. Even the solutions that she posted for the homeworks and exams exhibited tremendous work – it was never a one line solution, but rather a full derivation of the solution! I am not sure what my performance in the class would have been without her help, but I believe it wouldn't have been as good.

Furthermore, I am also in the same program as Clarice – the iQUISE program (Interdisciplinary Quantum Information Science and Engineering). During IAP 2010, Clarice organized a class on Quantum Computing and Information that I also had the pleasure to attend, Monday through Friday for four weeks. In this class, she gave us lectures on the fundamentals of Quantum Computing followed by a presentation for someone doing research in that area. This class (or lecture series) was interesting and fun and I was very impressed with Clarice leadership in bringing so many different speakers from different departments to come together and present to us their research.



Clarice did not have a single bad review from the students in the Quantum and Statistical Mechanics class, as a matter of fact almost all the students said that she did a superb job at being the Teaching Assistant for this class, giving her the best rating on her feedback form. Clarice has a gift in her ability to present very complex information clearly. She seems genuinely dedicated to help her students achieve their goals, and I truly hope that her amazing teaching ability is recognized. She deserves the Goodwin Medal.

Please contact me if you have any questions.

Best regards,

Veronika Stelmakh

Jianqiang Lin  
Graduation Student in EECS, MIT  
60 Vassar St. 39-619, Cambridge, MA 02139  
Email: LINJQ@mit.edu  
Tel: (617) 225-8143  
16<sup>th</sup> March 2010

To Whom It May Concern:

To Recommend Ms. Clarice for the Goodwin Prize

I am writing this letter to recommend Ms. Clarice for the prestigious Goodwin Prize nomination. I took the class 6.728 in 09/10 Fall semester when Clarice was the class Teach Assistant. I have witnessed her enthusiasm, academic strength and teaching capabilities in the class.

6.728 is the introductory course for quantum mechanism and statistic physics. Both subjects have high requirement in mathematics and physical intuition. Because of the heavy workload and the level of difficulty, generally it is considered as a difficult class. At the beginning of the semester, I had the thought of dropping the class due to the heavy workload and uncertainty of passing it. Clarice's support in the class was one important reason of my decision to stay on.

Clarice's passion can be embodied in her discussion with students, both in the recitation and office hours. Her office hours usually started at 5pm, but sometimes it did not end until even at 8pm. For several times, I was the last student in her office, yet she answered my questions with patience and without any sign of tiring. The discussion with Clarice had given me encouragement even when I faced many difficult problems. She had also made creative animation, analogy and illustrations to explain difficult problem in a comprehensive way. There were many more such examples with her teaching. Her passion and patience made me feel that I was not alone but was armed with great support in the course, Clarice's help throughout class had been critical for me to develop the maths skill and physical intuition. At the end, I was able to do well in this class with grade A.

She is not only a diligent but also an experienced tutor. She shared with us many techniques that were not taught in class. These techniques greatly facilitated the problem solving. To use Mathematica in solving differential equations was one example. I have been benefit from these for the work even outside the class. Besides, she knew how to make use the internet recourses, animation, and classical citations as complementary means for teaching. I enjoyed reading her citation on Richard Feynman on several relevant physics problems.

Meanwhile, Clarice has been one of the organizers for the Quantum Information section (an introduction to Quantum Computing), which I had participated in. From this, I think, she did have passion in communicating the latest knowledge in her field to many other

people, not only being a TA, but also in other circumstances. I believe she will carry on this task in future.

From my closed interaction with her throughout the 6.728 studies, Clarice is a diligent and passionate tutor. She has demonstrated great passion on teaching and her field of quantum mechanics. I therefore strongly recommend her for the Goodwin prize nomination.

Yours truly,  
Jianqiang Lin  
Graduation Student in EECS

77 Massachusetts Avenue  
Building 36-241  
Cambridge, MA 02139

March 17, 2010

Mr. Steven Lerman  
Dean for Graduate Education  
77 Massachusetts Avenue  
Building 3-138  
Cambridge, MA 02139

Dear Mr. Lerman,

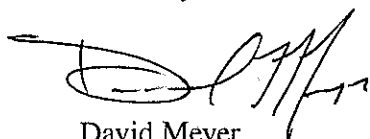
My name is David Meyer and I am a first year graduate student in Course VI. I am writing this letter in support of Clarice Aiello for the Goodwin Medal. Last semester I took 6.728 Applied Quantum and Statistical Physics and Clarice was my TA for the course. I also know Clarice because we are both part of the Interdisciplinary Quantum Information Science and Engineering (iQuISE) program where she organized an IAP course on quantum computing.

Clarice was the best teaching assistant that I have ever had. As an undergraduate I never experienced a TA as willing to change her approach to a problem if a student was struggling or if a student developed a better answer. There were a few times where I solved a problem in class in a more intuitive way than Clarice's approach and she encouraged me to explain my answer to her and other students. This method of allowing the students to help each other was more effective than just explaining the answers herself. Clarice sometimes worked late into the night to help students that were having trouble. It wouldn't be strange to have an email exchange lasting late into the night for some students in the class.

Clarice did not stop at emails and office hours though. She arranged for special sessions where we watched a lecture that Feynman gave at Cornell or to discuss applications of the material we learned. Then during IAP several students from 6.728 took Clarice's IAP course on quantum computing, even ones that were not part of the iQuISE program. This course reminded us of the course material we covered while covering many new topics and exposing us to the breadth of the work being done at MIT and around the world.

In short, Clarice was amazing and deserves to have her efforts rewarded. She was the best TA I have ever had.

Sincerely,

A handwritten signature in black ink, appearing to read 'David Meyer', with a stylized flourish at the end.

David Meyer  
Graduate Student MIT

Dear Sir/Mam,

I am a graduate student in the department of Electrical Engineering and Computer Science who took 6.728: Applied Quantum and Statistical Mechanics in fall 2009. I found the class enjoyable and enriching, and this was due in substantial part to Clarice Aiello's competence as a teaching assistant.

A good teacher should be lucid and patient, with the ability to accommodate the varying levels of understanding that may be found among her charges. Clarice was certainly all of these. She always made an effort to teach at a pace that was comfortable for every pupil. She also had frequent office hours and was swift in responding to email queries, so that any question we had seldom remained unanswered for long. I was especially grateful for the extra voluntary office hours she would schedule as exams drew close, which made her in my eyes one of the most considerate TAs I'd ever come across. In addition, she was very knowledgeable about the subject matter and had an accurate sense of the general level of understanding that most of us were bringing to the class.

For all these virtues, I feel that Clarice is an exemplar to teaching assistants throughout MIT and therefore highly recommend her for the Goodwin Prize.

Yours faithfully,

Liang Jie Wong

Graduate Student, EECS

To Whom It May Concern:

In 2009, I had the great fortune to have Clarice Aiello as my TA for the Professor Hagelstein's class "Applied Quantum and Statistical Physics." I entered the class at the beginning of the semester with little background in quantum mechanics and trouble grasping the intricacies of the materials, but Clarice's clear explanations greatly aided my understanding. Because of her depth of knowledge on the subject, she was able to take difficult problems and explain them in simpler terms. Her energy and enthusiasm about quantum mechanics really helped motivate the class, especially during the more difficult times of the curriculum (close to the exams). Clarice always made herself available to answer questions. She never hesitated to stay beyond the set office hours to ensure that everyone's questions were answered. Following the rare occurrence that one of her tutorials finished with something unclear, she would quickly send support emails with equations, figures, and book references to clarify the issue and encouragement to ask more questions if needed. One thing that particularly stood out was her organization of an extra session to show a video lecture by Richard Feynman covering the material we were covering in class. This really convinced me that she would use all the resources at her disposal to help the class learn. Clarice Aiello's tireless efforts as a TA were vital to my comprehension of that subject.

Respectfully,  
Daniel Piedra

**Clare Egan**

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**From:** Richard Lester [rklester@MIT.EDU]  
**Sent:** Monday, March 15, 2010 7:21 PM  
**To:** Clare Egan  
**Cc:** Anita Kafka  
**Subject:** Fwd: Goodwin Prize recommendation letter  
FYI

Begin forwarded message:

**From:** Dong Seup Lee <dongseup@MIT.EDU>  
**Date:** March 15, 2010 6:38:46 PM EDT  
**To:** Richard K Lester <rklester@mit.edu>  
**Subject:** Goodwin Prize recommendation letter

Dear Professor Richard Lester

Hello Professor Richard Lester,

My name is Dong Seup Lee, graduate student in EECS, MIT. I am very happy to recommend Clarice Demarchi Aiello for Goodwin Prize. I took 6.728 last semester, and she was a teaching assistant of the class. She enthusiastically prepared for recitation, and tried to spend lots of time with students as possible as she could. Moreover, she kindly answered every question which was asked through e-mails. Thanks to her help, most of students including me finished the class successfully. I believe that she is the right person for the prize.

Thank you very much.

Best regards,  
Dong Seup Lee

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Richard K. Lester  
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3/16/2010

Dear Prof. Grimson and Prof. Lester,

I am writing to recommend my colleague Clarice Aiello for the Goodwin Medal for "conspicuously effective" teaching. Clarice was a fellow graduate student in David Cory's Quantum Information Processing Laboratory in the Department of Nuclear Science and Engineering. Our time there overlapped from September 2007 through February 2009, during which we worked on the same research project.

Clarice has continually sought teaching opportunities and devoted herself wholeheartedly to them. During her first semester at MIT, the Cambridge Science Festival issued a call for exhibits that would spark children's interest in science and illustrate scientific concepts in a compelling way. Clarice thought that a large tornado machine would be a great way to do this, and eagerly dove in. She brought together a team (I did the hobby shop work for the machine), oversaw the whole project, and worked on developing the teaching materials. After countless hours of work, we presented the machine at the science festival to great interest. Clarice's excitement, joy, and skill in explaining the concepts to the attendees—who ranged from 5 year old kids to emeritus professors—were unmistakable.

She has also excelled in teaching to graduate students. Eager to teach, she decided to take a teaching assistant position in Fall 2008 for 22.105 on top of her research. Sharing an office with Clarice, I witnessed firsthand her devotion to the students. She never shirked her research responsibilities (I should know—we were working on the same project) and instead just worked longer hours so she could teach. Clarice would take students' questions at all hours, meticulously correct problem sets, and doublecheck her solution sets to make sure they were comprehensive and correct.

Clarice's presentation skills are also impressive. Her devotion to the clear and accurate communication of ideas and information is commendable. In her teaching, her research presentations, and even her conversations with colleagues, Clarice has always been conscientious about making sure that she knows what she is talking about and saying it in a way her audience understands.

As someone who cares deeply about acquiring and passing on knowledge—and is skilled at doing so—Clarice exemplifies "conspicuously effective" teaching. I wholeheartedly recommend her for the Goodwin Medal.

Sincerely,

Jamie Yang

Department of Nuclear Science and Engineering, PhD '08  
Postdoctoral Associate, NSE '08-'09  
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