Geoffrey G. Eichholz Faculty Teaching Award Nomination Packet

(Cover letter do not count towards page limit)

Flavio Fenton
Associate Professor
School of Physics
Georgia Institute of Technology

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Georgia Institute of Technology

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January 29th 2016
CETL Award Selection Committee

To whom it may concern:

It is with great pleasure that I write this letter of nominating Prof. Flavio Fenton's for the *Geoffrey G. Eichholz Faculty Teaching Award*. For the past four years I have enjoyed coordinating and teaching introductory mechanics with Prof. Fenton. In that time, I have been convinced of his dedication to teaching and his passion for sharing the hidden beauty of physics. As a former recipient of the Eichholz award I can not think of more deserving colleague.

Teaching a large introductory physics class to engineers is not a task that excites most physicist. Truth be told, I believe Prof. Fenton might have been intimidated with the prospect the first time we met during the Fall semester of 2012. Those fears were quickly laid to rest. Almost daily, he would pop into my office to show me a funny YouTube clip that he wanted to use during his lecture as an introduction to a new physics topic. Most Monday mornings he would surprise me with a demonstration he had constructed over the weekend to drive home an important concept for his students.

This year, Prof. Fenton's demonstration efforts have culminated in a large Technology Fee proposal to completely renovate and catalog the lecture demonstration room here in physics. If funded, this would allow other instructors to share his passion for demonstration.

This past year I have witnessed Prof. Fenton's teaching excellence reach new levels. His CIOS item 10 scores have increased from low 4's to high 4's and he receives multiple *Thank a Teacher* letters each term. Reading through his students feedback, it was obvious that he is a master at elating the fear of failure that plague so many students when they enter physics. Some are even surprised to admit that they enjoyed the lectures and praised his ability to entertain them with informative demonstrations.

Prof. Fenton's passion for teaching is matched by his love of physics. I believe part of what makes him such a great lecturer is that he enjoys making connections between his own research, on cardiac dynamics, and the physics we are teaching our introductory students. Several times throughout the semester Prof. Fenton would bring in equipment, simulations or even videos from his own lab to demonstrate to students that what they were learning in the abstract had real applications. Prof. Fenton would always finish those lectures with an invitation to stop by his lab for a tour.

I believe this had a profound impact on his students. Many students took him up on his offer and a few even ended up staying to start undergraduate research projects under his supervision. In the past 3 years he has had 7 students win PURA awards and approximately 15 undergraduate have worked in the lab, they have presented many posters and even given talks at national conferences. One of these students, Mary Elizabeth Lee, started a project as a freshman and ended up presenting the results of her experiments at a national conference that same year.

Office hours are often a touchy subject with professors. Most of those I have taught with have utilized a less is more approach. Prof. Fenton surprised me by doing the opposite. Instead of minimizing his contact with students outside of the lecture hall, he would continue to expand his availability as the semester progressed and the material became more difficult for the students. Having an office so close to his, I would often find him working with struggling students at his white board at 8am or 8pm; with equal probability. Last Fall, working with a group of students in the lab, one of his students confessed to me that her “C” in the class would be an “F” if it weren't for Prof. Fenton's extra efforts. Another student confessed that he had never met a professor who wanted everyone to succeed as much as Prof. Fenton did.

I think Prof. Fenton's commitment to his students can be seen in the many invitations he receives to participate in the social and academic activities of student organizations. For example, a few semesters ago Phi Gamma Delta invited Prof. Fenton to an afternoon BBQ to show their appreciation for this dedication to students. What I found most impressive, however, was that Prof. Fenton accepted the invitation and spent the afternoon talking about his research and giving academic advise over a plate of spareribs.

Beyond Prof. Fenton's commitment to students, he has demonstrated model citizenship as a Georgia Tech citizen. Earlier this January, he organized with his graduate student a regional conference for women in physics (CUWiP) that was a big success. The meeting set a new record for the largest number of undergraduate women physicists in attendance (more than 200) earning praise from the department chair, the dean of the college of science, and a writeup in the daily digest.

Since Prof. Fenton's arrival he has continuously partnered with Gwinnett County Highschools through Tech's GoSTEM program. This includes virtual classes through the D2D program, Physics demonstrations at the Latino fair, and participation in the the Atlanta Sciecne festival. Some of you reading this nomination may even have taken party in his attempt to spread awareness of heart disease and set a world record by creating the worlds largest spiral wave.

More locally, Prof. Fenton has been very active in the faculty senate, serving as a judge for the SIEMENS science competition, and sitting on the the institute awards committee. Within the physics department, he is one of the faculty members spearheading a new introductory physics sequence for life science majors. This new series of courses will be designed to engage and challenge a group of students who, traditionally, have failed to thrive in physics. This is an immense undertaking, that I believe demonstrates his commitment to innovative undergraduate instruction here at Tech.

It is for these reasons that I give Prof. Fenton my highest recommendation for the Geoffrey G. Eichholz Faculty Teaching Award. It is my belief that honoring Prof. Fenton now will encourage him to continue exploring his talent for teaching and we will all continue to be rewarded with his efforts.

Sincerely,

Edwin Greco, PhD
Academic Professional, School of Physics

Teaching Philosophy

Flavio H. Fenton

I believe that learning is the primary way to succeed in life and to better ourselves and our communities. For this reason, I think that it is important to awaken students' interest in learning science and to encourage them to seek knowledge rather than simply a good grade. To this effect, I believe that it is our responsibility as teachers to (1) clearly motivate each topic we teach, (2) to give dynamic and interesting lectures, and (3) to make the subjects accessible to all students.

(1) Each topic we teach in a course has been selected for a reason. Therefore, I find it crucial to convey the usefulness of each topic to the students so that they have an open and willing attitude in learning the subject. At the beginning of every class I find it imperative to identify for the students what is the topic of the day and the reason for studying it. To do so, I try to always start with a funny cartoon that has relation to the topic, and post at least one real life problems that may look like a puzzle but will have a clear answer by the end of the lecture.

(2) It is important to keep students excited and motivated; therefore, I am always compelled to find interesting examples, particularly if they can be related to everyday experiences to explain a given lecture. In class props and videos that engage students can become an important part of the learning process, especially because they stimulate the students' curiosity and allow them to apply what they learn in class to real situations.

(3) Clear presentations are essential, as well as an atmosphere where students feel comfortable asking questions. With the use of computers, it is easier to retain the students' interest by using well-designed PowerPoint presentations. This allows for only the most important concepts to be re-written on the blackboard during the lecture, allowing a more dynamic presentation where the teacher can interact more easily with students. Furthermore, the ability to incorporate movies, animations and real-time computer simulations using, for example, Java applets or VPython programs, can convey the fundamental message both more quickly and in a clearer manner using concrete examples. In addition, computer-based learning methods such as online course notes and online quizzes can motivate and make easier for students to work on topics outside the classroom.

I consider that two important components of learning are reasoning and synthesis of information, processes that largely come into play when reporting and summarizing results. That is why in addition to test results, I strongly emphasize clarity in writing and exposition on homework, as well as laboratory and project reports.

Non-traditional educational outlets

I also believe strongly that teaching is not confined to a course or a classroom and must be made available through multiple means. For many years now I have been committed to making as much information as possible available on the Internet, not only limited to students and class notes, but also for anyone interested in learning about science. For example I have created, maintained and financed by myself an educational website for the past twelve years (http://TheVirtualHeart.org), which has won several visualization and educational awards and ranks number one on all search engines under "virtual heart" and "heart modeling" among other search key words. I also have given multiple workshops and visits to local middle schools with science presentations to encourage students to study STEM fields and I'm a member of the D2D faculty at GT (direct to discovery high speed video conferencing for middle and high schools). Furthermore when writing articles I try for them to be not only innovative in concept but also, whenever possible, instructive and accessible for a wide audience and in some instances just educational such as a paper about teaching electrophysiology to young students that was published in *Advances in Physiology Education.*

In summary, I believe that a successful teacher is one who can communicate to students–even those who claim to "hate" science–the stimulation, excitement, and fulfillment of day-to-day research, and, most importantly, a sense of their own intellectual power to pose questions and to pursue their answers on a quest to enhance their knowledge.

Illustrations of Teaching Excellence

Georgia Institute of Technology

Fall 2015, PHYS 2211 Intro Physics I Section C
Instructor: Fenton, Flavio (Primary)

	Question Text	N	RR	Interpol. Median	0-3	3-6	6-9	9-12	12-15	15-18	18 +	N/A
1	Student: Hours per week	96	61%		3	7	29	28	19	7	3	0
					0-30	30-50	50-70	70-80	80-90	90-100	N/A	
2	Student: Percent attendance	96	61%		4	7	8	9	16	52	0	
3	Student: Percent homework completion	95	60%		1	2	0	2	8	82	0	
					5 Extremely Well	4	3	2	1 Completely Unprep	N/A		
5	Course: How prepared to take subject	96	61%	3.9	25	37	20	10	4	0		
					5 Exceptional Amt	4	3	2	1 Almost Nothing	N/A		
6	Course: Amount learned	96	61%	4.4	45	37	9	4	1	0		
					5 Exceptional	4	3	2	1 Very Poor	N/A		
7	Course: Assignments facilitated learning	95	60%	4.6	50	29	15	1	0	0		
8	Course: Assignments measured knowledge	94	59%	4.4	44	36	10	3	1	0		
					5 Strongly Agree	4	3	2	1 Strongly Disagree	N/A		
9	Course: Overall effectiveness	95	60%	4.6	52	32	8	2	1	0		
					5 Exceptional	4	3	2	1 Very Poor	N/A		
14	Instructor: Clarity (Fenton)	95	60%	4.6	52	35	6	1	0	1		
					5 Strongly Agree	4	3	2	1 Strongly Disagree	N/A		
15	Instructor: Communicated how to succeed (Fenton)	95	60%	4.7	62	25	7	1	0	0		
					5 Exceptional	4	3	2	1 Very Poor	N/A		
16	Instructor: Respect for students (Fenton)	95	60%	4.9	80	11	3	1	0	0		
					5 Extremely Enthus	4	3	2	1 Detached	N/A		
17	Instructor: Enthusiasm (Fenton)	95	60%	4.9	83	10	1	1	0	0		
					5 Made Me Eager	4	3	2	1 Ruined Interest	N/A		
18	Instructor: Stimulates interest (Fenton)	95	60%	4.7	63	23	8	1	0	0		
					5 Highly Accessible	4	3	2	1 Hard To Find	N/A		
19	Instructor: Availability (Fenton)	95	60%	4.8	61	22	5	1	0	6		
					5 Extremely Helpful	4	3	2	1 Not Helpful	N/A		
20	Instructor: Feedback helpfulness (Fenton)	95	60%	4.6	48	29	9	0	1	8		
					5 Strongly Agree	4	3	2	1 Strongly Disagree	N/A		
21	Instructor: Overall effectiveness (Fenton)	95	60%	4.7	63	30	1	0	1	0		

Some student's comments about:

What was the greatest strength?

- Fenton's greatest strengths were his examples that tied in with the concepts were learning.
- He was very good at communicating the material to the students.
- Dr. Fenton's greatest strength was his interactive teaching style. I can only recall very few days when he did not call a student down to help in a physical demonstration of physics. He would captivate the interest of every student, whether the student was already paying attention or not.
- He seemed to be passionate about physics He seemed to like physics and was generally a nice guy.
- Really gained interest in the course. Was always willing to help students, and was always very respectful.
- If I had not already filed my exit survey, this course and Fenton would be on my list of top courses I've taken at Tech. He is so good, I learned a lot through his lectures and the hw assignments. I was excited to take the last test. I have been telling everyone all semester what a great physics class I have and I have been looking forward to lectures. I NEVER thought I would write that of physics 1 at Tech.
- The dude was boss!
- I hated physics before this class but now i really like it because i understand it! Great teaching!
- His experiments genuinely made me interested in the physics behind them and he was a very approachable professor
- I like the experiment you did during class and the clicker question also help to understand the class materiel.
- Tried to make material relevant and also used humor to engage the class.
- Being enthusiastic and trying to let us have fun while still learning.
- Dr. Fenton is a VERY nice guy and loves to help students. If it wasn't for this enthusiasm, I would have never attended class!
- Great lecture and in-class demonstrations
- Very excited about physics.
- Showed many real-life applications that stimulated my interest and led me to apply physics to events out of the textbook
- He is very intelligent and he lectures very well.
- Clear and straightforward teaching. Never overcomplicates examples or gets off topic.
- Keeping the students' attention by showing videos of real-life applications of the topic covered during lecture or having in-class demonstrations Keeping the students' attention by showing videos of real-life applications of the topic covered during lecture or having in-class demonstrations.
- in class demo with physical objects
- Dr. Fenton is always very enthusiastic about physics concepts in real life, and he had regular demonstrations for the class to help students visualize concepts.
- Dr. Fenton's greatest strength is that he cared about the student's success.
- He is very enthusiastic and gives lectures that are interesting and stimulating.
- Flavio is one of the best professors I have ever had in my 4.5 years at Tech. He is passionate, knowledgeable, considerate, fun, humorous, and just all around a great teacher. His lectures are engaging, he truly cares that his students learn, and he puts in the time to make his lectures as engaging and effective as possible.
- Flavio's excitement about physics is obvious and contagious.
- His teaching methods was excellent, he not only made the subject interesting to learn, but also added in a few humorous jokes, and actual physical activities that displayed what he was teaching.
- He was very descriptive in his teachings and if anyone was confused he would easily explain the material. He was very funny when he taught as well.
- He used lots of demonstrations that were very helpful in learning the material presented.
- He is so enthusiastic and nice! He made such a daunting course a lot more approachable.
- He made physics so interesting. He broadened our minds beyond the box, showing us the strangest yet most relevant situations we could find physics
- He used a lot of beneficial demonstrations that reinforced what we were learning.
- He genuinely did care about teaching students. This was great.
- He really cares about trying to get students to understand and get interested in the subject matter.
- Extremely nice and a great teacher
- Very nice, very funny, did not take himself too seriously. Very down to earth.
- He is passionate Passionate about the subject
- His demonstrations during lecture. They were so much fun. He's also a pretty funny guy.
- He was very enthusiastic about the class and the students.
- being available for office hours and really caring about the students and wanting them to succeed- so great, I have never had a professor like that before
- He could answer any question on the spot and was very good at explaining why certain equations and properties applied.
- Relates everyday activity to physics principle.
- His detailed explanation of theories in physics and eagerness to show how each principle worked in the real world. Very helpful in understanding the material.

Thank a Teacher notes (example of 3 out of 8 from Fall 2015)

Your Name: Noah Pilz

What would you like to tell instructor? Professor Fenton,
Thanks so much! Both for the wonderful class, and for being such a great professor! When I started this first semester, I was really worried about physics specifically because I had heard how difficult it could be. However, I put it in the effort every day and never gave up. What made all the difference though was that you made every lecture interesting and fun, and you always had a demonstration on how physics can be applied in everyday life! If it weren't for your enthusiasm in this class I wouldn't have been able to do it. You inspired me to want to do well, and I can't thank you enough for that.

There's a big difference between wanting to do well in a class just to get the grade, and wanting to do well in a class because you enjoy the material and the professor. The first one feels like work, while the second feels like challenging fun!

So, thank you for making physics such an enjoyable class for everyone, between the hilarious YouTube videos, interactive demonstrations, and for dressing up for Halloween that one day, it couldn't have been a better class! :)

What would you like to tell instructor? Professor Fenton,
Thank you for being such a great teacher this semester. Coming into your class, I pretty much had no basic knowledge of physics, so I was worried about how I would do. You kept your lectures interesting, and the class was always really enjoyable. I did have a hard time with this, but I feel like I definitely was helped a lot by you during your office hours, so I would also like to thank you for always being so approachable and willing to work outside of class hours. I really enjoyed this course, and have recommended you to all of my friends that still hav to take this.

Thank you,

Alex Norwood

What would you like to tell instructor? Dear Professor Fenton,
I hope you are having a happy holiday season. I wanted to thank you for this last semester. Coming into Tech, I was more than a little nervous since I had heard about how difficult Georgia Tech can be. Your class was the opposite of all the horror stories I had heard.

It was nice to know that I had a professor who was truly invested in his students' success and was approachable in office hours. Thank you for helping to make this semester great.

Best regards,

Raghav Srivastava

Pablo Laguna
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January 29, 2016

Dear CETL Awards Selection Committee:

This is a letter to nominate Dr. Flavio Fenton, an associate professor in the School of Physics, for the Geoffrey Eichholz Faculty Teaching award. In my opinion, he deserves this award because of the quality of his teaching in our core courses and the highly effective supervision of graduate students.

Flavio joined the School of Physics during the Summer of 2012. He is a biophysicist whose work involves computer simulations and experiments to understand excitable media, complex systems, and pattern formation in biological systems. An example of his research is his work on cardiac dynamics during instabilities associated with arrhythmias of hearts, from small fish to horses. In less than two years, he has quickly established a research effort that is highly recognized by his peers. Everything indicates that Flavio is a rising star in our school.

Research is not Flavio's only passion. He enjoys tremendously teaching and outreach. He is a strong believer that our job as scientists will be far from complete if we do not communicate the value and excitement of our field to students and the general public. Flavio is always looking for innovative communication channels or activities to instill in the general public an interest for science. One of his latest projects is to create, during sport events, human wave patterns in the stands that mimic the dynamics of spiral and scroll waves in the heart. He and one of his graduate students organized an undergraduate woman in physics conference with more than 200 undergraduate students attending from universities in the south east and GT, see details:
http://www.cos.gatech.edu/content/women-physics-meet-georgia-tech

Since his arrival to Georgia Tech, Flavio has been teaching our introductory physics courses. To excel in these courses is challenging. This is mainly due to the large number of students (200 +) taking the class and because these courses are unfortunately viewed by some of the students as an obstacle in their path to earning an engineering degree.

Successful instructors have a firm commitment to finding ways of improving the presentation of the material, keeping the lectures fresh, identifying quickly what works and what does not, and genuinely caring for the educational experience of the students. The letters from students and colleagues, as well as student survey scores, clearly indicate that Flavio is a highly successful instructor because he possesses all these elements. Without a doubt, he is one of our stellar instructors teaching introductory physics courses. His current teacher effective score is 4.7, extremely high for a large core course which is transitionally consider as one of the toughest for GT students and just this past semester alone he received **eight** "thank a teacher" notes.

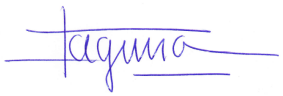
Flavio uses a variety of innovative strategies that specifically address the challenges of each topic. He has developed a large set of experiments (50+) for the classes that he shares with other instructors along with a repository of common day life YouTube videos that demonstrate many of the concepts taught in physics 2211. Furthermore, under Flavio's initiative he and a graduate student are currently working on improving our Physics demo room and he is submitting a Tech Fee proposal to increase even more the number and quality of physics demonstrations.

As chair of the school, reading the comments in the nomination package that students wrote for Flavio is highly rewarding and, why not, moving. It is clear from reading them that Flavio manages to successfully engage, challenge, and support students even in these large class settings and furthermore, sets special emphasis on helping struggling students.

Flavio's commitment to undergraduate instruction goes farther than just the classroom, for example he actively invite students to attend the physics public lectures we offer and specially encourages them to engage in undergraduate research. Very often in class he will inform students about opportunities with professors in our and other schools and about applying for research awards such as PURA and Petit-scholar awards. In fact, over the past two years, he has had 7 PURA award students in his lab, in addition to many others taking research for course credit. Thought the year, Flavio participates in several outreach events and brings many of his undergraduate students with him not only to help but so they can appreciate the benefits of outreach. For his previous efforts and to foster further events, Flavio has been awarded the 2015-2016 GoSTEM Faculty Fellow.

Having a faculty colleague like Flavio, who is making strides to be a top scientist and fully committed to be the best at teaching, is the essential foundation to establish a first rated program. Because of his scientific success, engagement in outreach and, in particular in this case, passion for teaching, I enthusiastically recommend Flavio for the Geoffrey Eichholz Faculty Teaching Award. I cannot think of anyone more deserving than him of this award.

Best regards,



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January 28, 2016

Re: Flavio Fenton

I am writing in support of the nomination of Dr. Flavio Fenton's for the Eichholz award.

Since coming to Georgia Tech Dr. Fenton has taught Particle Dynamics, Phys 2211 and Computational Physics, Phys 3266. Phys 2211 is an important foundational course in the preparation of science and engineering students, before they proceed to major studies, and it is a required course in the institution's sophomore science and engineering curricula. Physics 2211 is delivered in the large lecture hall environment with class sizes ranging from say 100 to over 200 students. As such the class provides a significant challenge to the instructor: to stimulate dialogue with a class of primarily non-majors and deliver demonstrations which are both germane to the subject matter and sufficiently clear and simple to pace the lecture forward. Dr. Fenton has been teaching one of the two curricula for Phys 2211 offered by the School of Physics, namely *Matter and Interactions*. Student CIOS response scores for the sophomore sequence are typically lower than in major or upper level undergraduate classes. Dr. Fenton receives high student evaluation (CIOS) scores, and is to be commended for improving these already high scores over time.

In my capacity as Director of Teaching Effectiveness for the School of Physics, I attended one of Dr. Fenton's classes, *On the momentum principle*, delivered in a full lecture room 1 in the Howey Building. Dr. Fenton gave a very entertaining lecture involving several types of media: writing basic examples and principles on the whiteboard, with two large projection screens used for leading the discussion and to pose clicker questions to the class at opportune points in the development. Dr. Fenton also showed a whimsical video clip demonstrating the inertia principle, involving a truck filled with chairs driving off without closing the back door. A demonstration of the vector nature of force and momentum change involved trying to make a ball (in Dr. Fenton's demonstration) and then an egg (tasked to the student volunteer) fall vertically into a cup when the table, on which the ball/egg is placed, is pulled quickly away horizontally. Such demonstrations, infused with a sense of fun, certainly help to keep students involved and attentive, while at the same time make important scientific points. Clearly, Dr. Fenton gives a great deal of thought and preparation to his choice of demonstrations and illustrations.

Dr. Fenton shows that he is a talented and creative instructor who continues to improve his excellent level of instruction in the large lecture hall environment. He has also brought his own ideas and methods to the instruction of more advanced students in Computational Physics. In summary, Dr. Fenton is an excellent candidate for the Eichholz award.

Sincerely,

T.A.B. Kennedy

Brian Kennedy, Professor of Physics,
Associate Chair and Director of Teaching Effectiveness, School of Physics

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Atlanta, January 27, 2016

Caroline Noyes, Director
Center for the Enhancement of Teaching & Learning
Georgia Institute of Technology

RE: Flavio Fenton

Dear Ms. Noyes,

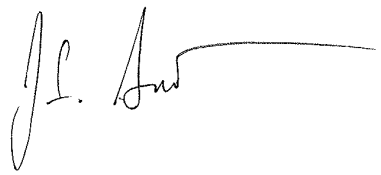
It is my sincere pleasure to write this letter recommending Professor Flavio Fenton for the Eichholz Faculty Teaching Award. As a Physics professor myself, I appreciate the significant challenges faced in communicating a difficult subject to a large, diverse audience.

While I know Flavio has taught Introductory Physics 2211 multiple times, I only experienced his innovative, engaging style myself in Fall 2015 when I taught the course for the first time. As it was also my first time teaching a large course, I was naturally anxious. To better prepare myself, I attended every one of Flavio's 9 AM lectures before giving my own at 1 PM - the timing was very fortunate! I saw not only a great example of how to present the material, but also how to keep the students interested and engaged. For example, Flavio uses numerous demonstrations, including many that he has developed himself, as well as videos that bring the material off of the proverbial page.

His dedication to the success of his students knows no bounds. He offered two official office hours on different days, but often spent *at least* twice that time with students in his office each week, working very patiently with all that cared to come, irrespective of their performance or ability. He was also accessible outside of those times - never did I see him turn a student away. In our joint course planning meetings, he would always consider the impact of our decisions on the students, e.g., ensuring that test questions, while challenging, matched the content of the lectures.

Flavio's commitment to undergraduate teaching is beyond any doubt; furthermore, his teaching excellence is reflected in his consistently superlative teaching scores. I have little doubt his impact reverberates throughout their Georgia Tech career and beyond, just as it has for me.

Sincerely,



James C. Gumbart
Assistant Professor of Physics
Georgia Institute of Technology

Letter of Support from Current Students

Dear CETL,

I had Professor Fenton last semester for Physics 1. Coming into the class, I had no enthusiasm or motivation whatsoever for physics. The only background knowledge I had was from an online physics course in high school.

Once or twice the first week of classes, Professor Fenton brought in different materials to show us how cool physics is. I really didn't pay much attention because I thought he was just trying to get our attention. But it worked! The amount of effort he put into the class really showed with all of the in class experiments that he brought and explained to us. It would be easy for any professor to find a YouTube video to show us the same thing, but he would take the time to follow through with the experiment even if it didn't work the first time. Whenever he asked for volunteers for one of his experiments, no one really raised their hands (I was sitting in the back or else I would have every time!). But the great thing about Professor Fenton is that this did not affect his enthusiasm for the class at all. Every day he would come in with such a great passion for the topic and that really helped me become more interested in the class.

For Halloween, Professor Fenton showed up as Homer Simpson. He stayed in the costume during the entire class, and he brought a big tub of candy for everyone to have also!

It wasn't until the fourth test though that I realized how great of a professor he is. I started struggling and I realized I would have to get a high grade on the fourth test if I wanted to get an A in the class. I have never really been a fan of office hours. Most of my professors have been pretty mean and office hours have always been pointless. But I was amazed how helpful Professor Fenton was during his office hours. It was the Friday before the test and there were like 4 guys in his office already asking him questions. I went in there and just listened while he answered the questions that I came in with. He was resolving problems that he went over in class that some of us didn't fully understand too. And the difference between Professor Fenton and most other professors is that HE CARES ABOUT HIS STUDENTS!

He stayed in his office for an extra hour helping us when he was suppose to already have been at the St. Baldrick's event that night. Not only that, but he told me and another student that he would be in the office the next day (Saturday) and that we were more than welcome to come in with more questions. I struggle with even meeting with my other professors during the week when they are suppose to be on campus! After the fourth test and before the final, I came in another time to his office hours. I was there for about 3 or 4 hours? There was one question from Test 4 about the kinetic and potential energy graphs with different scenarios. I pretty much just tried to memorize the different graphs for the test but when I went into his office for his help, he broke down the problem in a way that I understood so much better for the final. He redid every graph with me and gave me new scenarios so that I could draw new graphs too.

During this time, he was super busy with his own lab and research. People kept coming in asking questions and needing his help. I kept saying I could leave because he was already nice enough to see me for that long. But he insisted I stayed and after about 5 or 10 minutes he would return to his office to work on another problem with me. After helping me, he started talking to me about my major and what I do at Georgia Tech. I told him I am a chemistry major and pre-med. He started telling me about the research they were conducting in the lab with a rabbit's heart (some small animals heart) and the biophysics behind it. It was so interesting and I had never learned about anything like it. Then he invited me into the lab to see it myself. He didn't stop there though. He invited me and any other AMSA executive board members to come to his lab anytime if we are interested. It was above and beyond from any other experience I have had with other professors. I never would have imagined that I would have gotten an A in physics especially at Georgia Tech, but Professor Fenton helped me to make that happen. I am super grateful for everything he did for me and his other students.

Thank You,
Layla Darian

To whom it may concern,

Heading into my first semester (Fall 2015) at Georgia Tech, Physics 2211 landed on my schedule. I was admittedly a little nervous--college physics looked like it would be a challenge. And it certainly was, but much to my surprise it ended up being manageable all thanks to Professor Fenton. Although it was a lecture hall of 100+ students, Prof. Fenton made me feel as though he taught the material directly to each individual. His passion for the subject (and for flan) was obvious, and his excitement made it much easier to appreciate and understand the material. Prof. Fenton's office hours were filled with opportunity to get answers to any questions I may have had. He offered as much assistance as possible, and as a follow up he always made sure to check in with not only me but also all his students to make sure we were comfortable and confident with the material. I can say without a doubt that I was able to succeed in the course thanks to Prof. Fenton’s effective skills as a lecturer and teacher. I absolutely support Prof. Fenton for a CETL teaching award. Physics isn’t easy. Physics at Georgia Tech really isn’t easy, so to have a professor that could dissect and communicate the concepts in a clear and concise way was invaluable.

Ben Rapsas,
BME 2019
Chief Justice, RHA Judicial Board

Dear CETL,

Professor Fenton might not be a helluva, but he is a helluva physics professor. When I first walked into his class last semester, I was expecting a by the books introductory physics lecture with no frills or thrills. What I received was a fascinating physics lecture that was engaging and lively (almost as lively as the physics paraphernalia in Fenton's office). Fenton actively worked to ensure that concepts were well explained and understood. To keep the class interested in the topics, he often threw in a dash of humor into the lectures. I'll always remember the class when Fenton walked into class as Homer Simpson for Halloween. My only regret after taking Physics 2211 with Fenton is that he never bought us any flan to try.

Sincerely,
Jacky Zhu

Previous* Letters of Support from 2014

*These letters were collected as part of a CETL award nomination in 2014. They have been included to demonstrates Prof. Fenton's commitment to large introductory physics courses from previous semesters.

Lindsay Dahora
324585 Georgia Tech Station
Atlanta, GA 30332

To Whom It May Concern,

I would like to commend Professor Flavio Fenton for being one of the best instructors I have ever been fortunate enough to have. When I took AP Physics B during my junior year of high school, I had a really rough time in it. I did well enough to get through it, but at the end of the semester, I didn't feel like I took any real knowledge away from the course. I also did not enjoy my time taking that course and dreaded the thought of having to take another physics class in college. Coming into the Fall 2013 semester and being enrolled in Physics 2211, I was nervous. I told my parents, as a 4.0 student, to expect my first C. That's how much I didn't believe in myself and my abilities to succeed in physics. The week before finals, I was right at the crossroads between an A and a B with an 88 in the course. On the last day of classes, I realized something: I didn't care if I made a B in physics. I didn't care because going through the course with Professor Fenton made me feel confident that even if I did get a B, I actually LEARNED more in that course than in many other courses I've gotten an A in. Sometimes, as a student, we can get away with doing well in the class without taking away any knowledge that will stick with us once the course is over. Professor Fenton made me enjoy learning physics. He made me enjoy coming to class and practicing problems. I always felt so accomplished getting a test grade back even if it was an 86.5% or an 89.5% and not quite an A because I worked hard for those grades, enjoyed the concepts I was learning, and felt like I wasn't just memorizing things but truly gaining new knowledge. Professor Fenton deserves any honor a professor could ever get. He comes to class every day with a passion for what he does, a good attitude, interesting demonstrations, and a drive to answer questions and help students understand. He takes his time explaining what we haven't comprehended,

makes himself available for help outside of class if needed, and goes out of his way to make sure his students are getting the education they came here for. The last thing I want to say about Dr. Fenton is by far the best thing. He believes in his students. He believed in me. On the last day of classes, I told Dr. Fenton that I was on the edge of getting an A and B, and he told me to practice what I knew and not to stress about the grade. He said he knew I could do it and just to try my best. And when I did end up with an A in the course, he personally sent me an email to congratulate me and remembered the conversation we had had on that last day of class. Professor Fenton truly deserves this award. He is one of the best instructors I have ever had, dedicating as much time and effort as his students need to succeed and excel.

Sincerely,
Lindsay Dahora
Sophomore Biochemistry Student

By undergraduate student Jessie Walls,

In all honesty, my physics class in high school was a joke. Needless to say, I was terrified upon entering Physics I at Georgia Tech because I had barely seen (and much less, learned) any of the material beforehand. I was unfamiliar with the topics and had convinced myself that I would be far behind other and better-prepared classmates. To add to these anxieties, I had heard from some upperclassmen acquaintances that GT Physics was perhaps not the grandest of departments.

After exam number one rolled around, I was proving myself correct. Upon receiving a lowly score of ‘F’, I just knew that my fears were justified. I wavered with the decision of whether or not to drop the course; I did not want to be behind in my major-required curriculum, but how was I ever going to get a handle on this stuff? This is where Dr. Flavio Fenton stepped in to save the day (or, rather, semester). Everyone tells you that professors really do want you to succeed, but you also have to be willing to put forth the time and effort to seek out their individualized assistance. Office hours can be intimidating, what, with the one-on-one time and risk of seeming totally dumb in front of this expert in the field. But this was not the case with Professor Fenton. The moment I stepped through his office door, he was bubbly, friendly, and very eager to help me. He exuded an essence of humility that made him seem like a regular guy who I could just talk to but who could also guide me through my crisis that was Exam One.

He gave me encouragement by telling me about former student success stories, which at the time seemed like mere fantasies. He told me that I could indeed work a bit harder and of course visit him any time in his office for further review of course materials. I took him up on this offer many-a-time and followed his advice to stick it out through the rest of the course. By mid-semester, I was writing my very own success story! I had made two high ‘B’s on the subsequent exams, and with a little increased determination, I honestly felt like I was grasping those previously-terrifying topics.

With inspiration from Dr. Fenton, I very nearly made an ‘A’ overall in the course—something I never dreamed would be possible. I learned that Georgia Tech Physics is not something that should cause doom. And most importantly, I learned that hard work truly does pay off! I want to thank Professor Fenton not only for teaching me classroom material, but also for teaching me that very vital life lesson.

Nicolai Popescu
2086 Plantation Road
Lawrenceville, Georgia, 30044
n.popescu@gatech.edu
January 21, 2014

To whom it may concern,

My name is Nicolai Popescu. I am a third-year Computer Science major at Georgia Institute of Technology. I am also currently a Teaching Assistant for Computer Organization and Programming (CS2110). I took a course in Physics I last semester (Fall 2013) with Professor Fenton as my instructor. After a semester of being mentored by him in the realm of Physics, I would like to eagerly recommend Professor Fenton for the Junior Faculty Teaching Excellency Award as I truly believe that he is a very strong candidate.

Physics courses at higher education levels carry a stigma of being overly difficult or above the average students' abilities. Many people recall memories of their struggles in physics, and how all they wanted to do was to somehow get past the required course and to never look back. This was one of the key concerns that Professor Fenton actively addressed in his lectures. His goal was to show his students that Physics is really not as difficult as they were led to believe. He always began explaining concepts from a fundamental principle, encouraging his students to break down complicated problems into smaller and smaller components until they arrive to a basic, key idea which they can then build upon.

Every thought, every idea, and every concept were carefully presented by Professor Fenton, who demonstrated how they all tie back into applications in real life. He oftentimes brought items to demonstrate the concepts that we have previously learned in a tangible manner, and he actively tied those presentations to the formulas and the math that we have previously seen. Could I really retain the memories about the concept of the Conservation of Angular Momentum without him asking a volunteer to spin on a stool while holding weights and expanding and contracting their arms? I think not. In fact, over the winter break, when I was asked to help carry a number of boxes, I caught myself thinking back to the ideas that he introduced to us, and I redefined the task of moving those boxes as a conceptual Physics problem. It is this idea of accessibility to physics that Professor Fenton tirelessly worked toward sparking within us, and I know for a fact that it has really worked for me.

It is not just the material that was influential – it was also the way it was presented. Professor Fenton was remarkably respectful to students throughout the semester. He normally held office hours and encouraged his students to attend. One of the times he even persuaded me to come by when he noticed that I did not fully understand a concept – and he helped me understand it much better. He always stopped to answer any questions and to address any concerns, and when he did so, he did it with the utmost respect towards the students. He smiled and he spoke with a calm and warm tone, and yet there was also a certain spark of enthusiasm in his voice and on his face that not only expressed his deep love toward the subject, but also, honestly, made me feel the same way.

I truly hope that you will consider this letter of recommendation and recognize Professor Fenton for being such an influential professor for me and for the rest of his students.

Sincerely,

Nicolai Popescu