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February 2, 2014

Dear Members of the Selection Committee:

This is a letter to nominate Dr. Flavio Fenton, an assistant professor in the School of Physics, for the CETL/BP Junior Faculty Teaching Excellence Award.

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.

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 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.

As chair of the school, reading the comments in the nomination package that students wrote for Flavio is highly rewarding and, why not, moving. 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 CETL/BP Junior Faculty Teaching Excellence Award.

Best regards,

Pablo Laguna
Professor and Chair

Brian Kennedy
Professor and Associate Chair
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January16, 2013

Re: Flavio Fenton

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

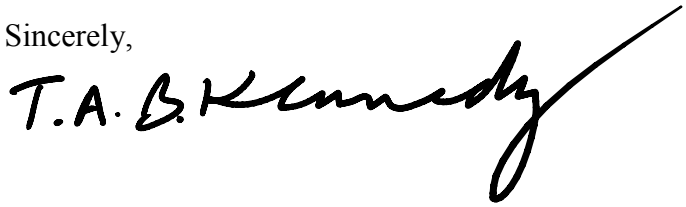
Since coming to Georgia Tech Dr. Fenton has been teaching Physics 2211 over three semesters. This course is an important part of the preparation for science and engineering students before they proceed to major studies and it is a required course in the institution's sophomore science and engineering curriculum. 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 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. Scores in excess of 4.0 out of 5.0 are regarded as evidence of superior instruction in these classes. In response to question 12 "…the instructor was an effective teacher," Dr. Fenton has received scores of 4.1/4.26/4.69 over successive semesters. Dr. Fenton 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. In so doing he is fulfilling an important role in

the School's and institute's mission. He is an excellent candidate for a teaching award.

Sincerely,



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

Georgia Institute of Technology

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January 27th 2014
CETL Award Selection Committee

To whom it may concern:

It is with great pleasure that I write this letter of recommendation supporting Prof. Flavio Fenton's nomination for the CETL/BP Junior Faculty Teaching Excellence Award. For the past three semesters 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.

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.

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.

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, last semester 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.

It is for these reasons that I give Prof. Fenton my highest recommendation for the Junior Faculty Teaching Excellence 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

Georgia Tech GoSTEM

31 January, 2014.

I am writing this letter in support of Dr. Flavio Fenton's application to the CETL/BP Junior Faculty Teaching Excellence Award. Dr. Fenton has been a dynamic participant in many GoSTEM initiatives, and in the past two years he has provided unique enrichment opportunities to high school and middle school minority students involved in our program.

The GoSTEM program is a collaboration between Georgia Tech and the Gwinnett County Public School District to enhance the educational experience of Latino students in Georgia and strengthen the pipeline of these students into post-secondary STEM education. In order to fulfill our mission we rely on Georgia Tech's faculty engagement in educational outreach activities outside the classroom and the laboratory. Since his arrival to Georgia Tech, Dr. Fenton has become an invaluable collaborator to our program. He serves on our Faculty Advisory Board tasked with providing guidance on how to reach out more effectively to minority K-12 students, and bridging the gap between K-12 institutions and higher education.

On 2012 and 2013 he has participated in our Fall Parental Involvement event held at Meadowcreek High School. This event attracts between 100 and 200 Latino family members from our partner cluster schools for a day of STEM hands-on activities, and college workshops. Dr. Fenton has prepared educational presentations and science demonstrations related to his research for high school and middle school students on these events. Furthermore, he has engaged graduate students from his lab in these activities, which provides younger students in our program with valuable role models in STEM careers.

In addition, Dr. Fenton is currently collaborating with our program and Dr. Leanne L. West from the Georgia Tech Research Institute on developing a bilingual science video for K-12 students about heat transfer in baseball. He will also provide professional development opportunities to Meadowcreek High School teachers through video conferencing presentations on topics related to his research.

At Georgia Tech Dr. Fenton has also supported the Office of Hispanic Initiatives. He recently attended the 2013 Hispanic Heritage Month closing and faculty dinner and interacted closely with GT students. Close interaction with students often makes a significant difference in the way students feel about faculty members.

In sum, Dr. Fenton is an exemplar educator and his commitment to the younger generations and minorities students is not only palpable, but it serves as great inspiration to other faculty, staff and students at Georgia Tech. His incessant effort to bring knowledge and encouragement to all students around him is indeed worthy of a Teaching Excellence Award.

Sincerely,

Diley Hernandez, Ph.D.
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January 16, 2014

To Whom It May Concern:

This letter is in support of Professor Flavio Fenton for the Georgia Tech CETL/BP Junior Faculty Teaching Excellence award.

It was my pleasure to work with Professor Flavio Fenton, who was part of the teaching staff of the NSF CMACS (Computational Modeling and Analysis for Complex Systems) Undergraduate Workshop on Atrial Fibrillation in January, 2011, and January, 2013. I am the director of the workshop, which has been provided for a select and diverse group of undergraduate students from the City University of New York each January from 2010 to 2014. Most students find the workshop helpful in deciding on and preparing for a research career, and Professor Fenton has been an important part of that.

Professor Fenton organized a week of lectures and demonstrations for the workshop in each year, including his own inspiring lectures and a number of fascinating wet lab demonstrations. Professor Fenton was responsible for all of the material from January 3 to January 7, 2011 (except for the introduction) and from January 14 to January 17, 2013. The slides and some materials about the wet labs can be found at http://www.lehman.cuny.edu/academics/cmacs/outline.php and http://www.lehman.cuny.edu/academics/cmacs/2013-lectures-readings.php.

In addition, he defined an interesting research project for the students to perform, based on his research work, and his input was crucial to a published paper on the results of the 2011 workshop. The student presentations on their projects are at http://www.lehman.cuny.edu/academics/cmacs/student-work.php and http://www.lehman.cuny.edu/academics/cmacs/2013-student-work.php.

The response of the students to the workshops in general has been enthusiastic, and in particular it has been clear that Professor Fenton added greatly to the excitement of the workshops and provided inspiration to the attendees. He gives enjoyable, exciting lectures and develops great rapport with the students. I have attached the comments of one of the students on her reactions to Professor Fenton.

He is an excellent and inspiring teaching, and in my opinion he is very deserving of the Georgia Tech CETL/BP Junior Faculty Teaching Excellence award.

Sincerely,

Nancy Griffeth
Professor of Mathematics and Computer Science
Director, NSF CMACS Workshops

CUNY

These comments are from Naralys Batista, an undergraduate (currently a junior) who attended the 2013 workshop:

The Computation Modeling and Analysis for Complex Systems Workshop (CMACS) for 2013 was an amazing and unparalleled experience. In 2013 I had the chance to study the underlying cellular mechanisms of the heart that led to rhythm disorders, such as Atrial Fibrillation. Being that A. Fib. is a common cardiovascular disorder that I have seen affect members of my own family, getting the opportunity to work with incredible faculty on a serious problem cemented my intentions to do research. With the help of Dr. Flavio Fenton's interactive animation of the electrical activity of the heart and his ability to make the complex systems of the heart accessible to an undergraduate student I was able to keep a constant interest in the project. The workshop served as an engaging and informative kickoff to my part in the growing field of research.

Statements from Students

My experience taking Professor Fenton's class was highly favorable. Professor Fenton did a great job at commanding students' attention and provided excellent in class examples. Tons of props were used throughout the class, almost to the point where class seemed like a magic show, but the secrets were revealed at the end. In addition to commanding student's attention, Professor Fenton was also accessible after class and showed a great concern for students. He really wanted his students to succeed and did his best to make sure that we did. It is because of these things that I would highly recommend Professor Fenton for the CETL/BP Junior Faculty Teaching Excellence Award.

Thanks,
Andre Giron

I would like to recommend Professor Fenton for the CETL/BP Junior Faculty Teaching Excellence Award. He was perhaps one of the best professors I had at Georgia Tech. He always was prepared for lecture and went out of his way to demonstrate a concept with actual examples the class could tangibly see. He was always able to relate these examples back to the subject matter and explained how they connected very clearly. Professor Fenton's teaching transcended the classroom environment, for if a concept became unclear as I attempted the homework, or if there was a potential error in submitting assignments, he always replied quickly and efficiently. He made is office hours as readily available and encouraged students to come. Professor Fenton was a marvelous teacher both in, and out of the classroom environment and greatly deserves this award.

Sincerely,
Daniel Hubbard

I am writing on behalf of Professor Fenton regarding his teaching ability and to address how much he deserves the CETL/BP Junior Faculty Teaching Excellence Award. I took Professor Fenton's class in Fall of 2013, and I was surprised to be immediately happy to be taking physics. Physics was not offered at my high school, so I was reluctant to take it here at GT. When I expressed my concerns to Professor Fenton as one student in a lecture hall of maybe 200 or more students, he treated me as if I was the only student he was teaching. His willingness to set aside his time to help students to learn is something I had never experienced before in my 3 years at Georgia Tech. I left the class feeling very comfortable with the material. I am proud to be able to say I can now help my peers with their homework because of what I learned in Professor Fenton's class. I have a newfound love for physics and the beautiful things in our universe that it explains, and I credit that to Professor Fenton. Professor Fenton is a valuable asset to the Physics Department, and moreover to Georgia Tech. I hope he continues to inspire Georgia Tech students for years to come.

Thank you,
Gabrielle Campiglia

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.

Jessie Walls

I had the pleasure of being in Dr. Fenton's physics 1 class last semester, and I would like to express my appreciation and gratitude for the excellent teaching methods he implemented and his great desire and availability to form relationships with students in order to better help them succeed in his course. At the beginning of the semester I was timid and shy about going to Dr. Fenton's office hours; however, once I went to his office hours and asked a few questions, it was evident that his goal was to help his students succeed and fully learn the material. I continued to ask him questions and his ability to explain the concepts in a way I could understand the material gave me confidence that I would be able to succeed in the class. I never thought it would be possible for me to make a good grade and learn physics as well as I did in Dr. Fenton's class. Everyday in lecture he had multiple fun demonstrations to show the class how physics relates to real life and all of the homework and labs facilitated learning and prepared me for the tests. The structure of Dr. Fenton's class and his availability for appointments gives students the resources to succeed in his course. Dr. Fenton has been the best professor I have had at Georgia Tech and I hope he receives the CETL/BP Junior Faculty Teaching Excellence Award.

Sincerely,
Kaitlin Jones

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

This past semester I finally took Physics 1. I say finally because I graduated at the end of that semester after four and a half years at Tech. As a fifth year senior in Prof. Fenton's class I was struck by his passion for teaching, for his

students, and for the material. I did not expect this, especially in an entry level course. Prof. Fenton was always excited for class, starting with a funny quote, video, or other amusing anecdote. Whether it was his doing or the universal course structure, the use of Newton's second law as the basis for each module of the course tied everything together in a way that helped me understand the principles and draw correlative relationships that I had not previously conceived.

It was not very long before the rest of the class realized what a great teacher Prof. Fenton was. I remember the second time he announced that he would be absent, the class groaned audibly. His passion and enthusiasm for what he was teaching infectious. I looked forward to physics lectures, more than my other classes.

I am very glad that this class was not just easy, either. I did not make and A, or even a B. I was present for lectures and labs, I was actively participating in both, and I studied, and completed homework. I feel as though the assessments were very fair and to the point, but I did not **give** what it took to excel. I do not know how the class measured relative to others, but I can say that in my four and a half years at Tech, Prof. Fenton stands out to me as one of the best professors I have had. For that reason, I would like to recommend him for this award.

Thank you,
Michael Chaney

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

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 the 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.

(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 ten 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 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.

Summary of Students Survey Response Reports for Physics 2211

Fall 2012 (75 responses, 36%), Spring 2012 (72 responses, 37%) and Fall 2013 (82 responses, 52%).

Quality of Teaching	FALL 2012	SPRING 2012	FALL 2013
	Interpolated Median	Interpolated Median	Interpolated Median
5. Instructor's clarity in discussing or presenting course material:	3.90	4.13	4.20
6. The instructor clearly communicated what it would take to succeed in this course.	4.07	4.08	4.58
7. Instructor's respect and concern for students:	4.39	4.63	4.91
8. Instructor's level of enthusiasm about teaching the course:	4.70	4.79	4.95
9. Instructor's ability to stimulate my interest in the subject matter:	3.93	4.26	4.64
10. Instructor's availability for consultation:	4.06	4.29	4.51
11. Helpfulness of feedback on assignments:	3.71	3.69	4.48
12. Considering everything, the instructor was an effective teacher.	**4.10**	**4.26**	**4.69**
Quality of Course			
16. Rate how prepared you were to take this subject.	3.54	3.76	3.38
17. How much would you say you learned in this course?	4.34	4.35	4.35
18. Degree to which activities and assignments facilitated learning:	4.16	4.20	4.34
19. Degree to which exams, quizzes, homework (or other evaluated assignments) measured your knowledge and understanding:	4.00	3.91	4.20
20. Considering everything, this was an effective course.	**4.17**	**4.19**	**4.46**

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.

- He really cared about the students
- Prof. Fenton in my opinion is an exceptional instructor. He is always full of enthusiasm and always demonstrating us interesting real life cases where physics plays cool tricks. I love the way he explains and presents topics.
- Instructor was enthusiastic, was willing to explain conceptes clearly, and had interesting class examples.
- He had a lot of examples that really brought the interest of the students to the material. He knew how to make the students want to learn
- Teaching at an easy pace and explaining in simplest terms what he was talking about.
- The homework's helped to understand the concepts but the tests were different than expected. Could tell that he had a great passion for physics.
- His interest in his students. He was genuinely interested in the wellbeing of his students academically.
- communicational skills communication skills
- He's amazing Amazing
- He explained the material clearly, provided examples, and was enthusiastic about teaching physics.
- He really cares about the subject and his students.
- Professor Fenton is extremely concerned with the success of his students and there overall understanding of physics. He did everything he could to help us do well in the course.
- I think his persona of being so friendly and approachable and willing to help made me continue taking the course instead of dropping it early on in the semester.
- Approachability, kindness, respect, and eagerness to assist
- Lots of live physics examples and videos to help explain a concept
- He was explaining important concept in very easy way. He did lots of interesting experiments that made me eager to learn more about this course.
- Able to clearly explain complicated Physics concepts. Great use of props and was able to command the attention of the class very well.
- The willingness to help students understand the information
- He included interesting experiments in class to show us to break up the hours of full lecture.
- Visual aids allowed us to easily pay attention
- Enthusiasm, clarity and in depth analysis of problems and derivations
- The idea of reading assignments on WebAssign allowed students to let this instructor know what they would want discussed more in class. This is a powerful teaching strategy, I feel.
- He was really enthusiastic about physics. He is really funny and keeps you eager to learn more. He brings a lot of examples and demonstrations to class.
- Being able to give interesting, real-world examples of the Physics subjects discussed Enthusiasm and eagerness to cover as much of the subject as possible
- He is excited about physics and his use of examples and humor makes the class easier to follow.
- His knowledge of the materials covered
- Extremely enthusiastic about what he's teaching and gets the kids involved. really nice guy and you can tell he cares about his students. fantastic professor
- Enthusiasm.
- Knowledge of Physics.
- Explains example questions very well, tries to bring in small demos for certain topics.
- I enjoyed his demonstrations
- He tried to teach easily.
- The Teacher explained everything: from examples to concepts. He also managed to do small presentations in front of the class towards the end of the period that would present the concepts explained in that class.
- Enthusiasm
- Showing how what we are learning applies in real life.
- His knowledge and care to teach.
- His greatest strength was giving the equations you would need for the course and also giving the students reasons to be interested.
- One of my favorite teachers, very accessible, polite, and enthusiastic. A great figure for introductory physics.
- His greatest strength was the demonstrations. They were stimulating and interesting.
- His excitement about Physics.
- Enthusiasm and he always had in class experiments to show us.
- Loved his models, and the many, many examples for dealing with question that may appear on the tests (and often do).
- Funny and smart.
- He loves physics and you can tell.
- He was always there for students to ask questions. Very approachable. Very nice. Very helpful and always willing to help students succeed.