

Title: Sophia Chabysheva and John Hiller

Date: 4/25/16

To: Marc Seigar <msseigar[at]d.umn.edu>

cc: Vitaly Vanchurin <vvanchur[at]d.umn.edu>, Mary Cameron <mcameron[at]d.umn.edu>

Dear Marc,

I am writing to lodge a formal complaint against Sophia Chabysheva and John Hiller, for knowingly and deliberately disrupting my teaching of Physics 3033 "Analytical Methods in Physics" during Fall 2015.

I now have concrete evidence that, because the students in my class were also students in Sophia's classical mechanics course, she used her platform to openly criticize the difficulty of my course. John Hiller has also been involved in criticizing my course in front of students. Furthermore, as I understand from you and Vitaly Vanchurin, John Hiller has gone as far as to complain about my course with you, at a faculty meeting, and even with Dean Joshua Hamilton – all of which took place behind my back. As you may recall, you had kindly placed me to teach Phys 3033 during Fall 2016, after noting I had applied for an EVCAA R&S grant to help support my further improving of the free textbook I wrote for the students. However, partly due to John Hiller's criticisms, Dean Hamilton has unfortunately exerted pressure that has lead to my removal from teaching Phys 3033 again. (I am happy to be corrected if I have misinterpreted these latter events, but I merely want to highlight, through no fault of my own, the severity of the consequences that have been inflicted upon me, as the result of Sophia and John's irresponsible actions. I believe, ironically, Sophia Chabysheva is now slated to teach Phys 3033 in the Fall?)

I have written to my former students very recently, to ask them to help answer the following anonymous survey:

<http://sayat.me/UMDPhys3033Fall2015/read> .

As you can read, both Sophia Chabysheva and John Hiller have been misleading students that my course was a PhD level one, during Fall 2015 itself; i.e., at the same time my course was in session. (In retrospect, it is therefore not surprising that my evaluations could have been better and attendance higher; this was something that Dean Hamilton used against me, if I am correctly recalling our meeting several weeks ago.) While teaching the course, I had already developed strong suspicions that Sophia and John were doing so, and also had sensed, as a result, many of my students felt entitled to let the challenges they faced discourage them to the point of becoming disengaged from the class altogether; even my 2nd best student openly blurted out in class one day, how my class was too difficult. These suspicions have been borne out by at least one of the 3 anonymous comments in the survey; it reads "... At the time, I often agreed with Dr Chabysheva, blaming the difficulty of material for my struggles rather than my own lack of ambition... ". In other words, there is now sufficient evidence for me to suggest that both Sophia Chabysheva and John Hiller have abused their positions as faculty members to delude my students; and their deceit has directly impeded my students' academic and intellectual growth. (I have more to add on this point below.)

One may wonder if there is any ounce of validity to the claim that my course was taught at the PhD level. This, too, has been addressed by the anonymous comments above; for, the student tells us "The topics discussed have come up numerous times in my other undergraduate courses, and I owe my increased GPA to Dr Chu." Furthermore, because I stand by my work, I'm more than happy to have the contents of my course vetted by external referees, but I can assure you, all I was teaching was: Complex Numbers, Linear Algebra (from an abstract perspective)

using Dirac's bra-ket notation, Complex Analysis, and aspects of Partial Differential Equations. Since I have been trained as a theoretical physicist, I can confidently state that these topics most surely form the mathematical core of a solid advanced undergraduate physics curriculum. There is also no need to take my words for it, since the short textbook I wrote for the course is freely accessible online:

[Link deleted due to technical problems.]

Moreover – and you are probably aware of it already – my effort to offer a high quality course to the students has already brought about tangible benefits to some of my students double majoring in math/physics. Specifically, as he was turning in his final paper, one of my students informed me that "... While the class was not easy by an [sic] means, it did push me. The linear algebra portion was particularly interesting. It was rigorous enough that three of us were allowed to register for advanced linear algebra (5000 level) as opposed to the 4000 level linear algebra class that's required by the mathematics degree..." Furthermore, in my EVCAA R&S grant proposal, I pointed out that free textbooks help advance diversity. By making knowledge more accessible, low income students will not be burdened by the need to purchase textbooks, whose prices these days can be quite exorbitant. For instance, one of my students from last semester was already a father, juggling childcare, a full time job and school; I am glad he did not have to pay for the ~\$190 textbook originally assigned for the course.

I want to be respectful of your authority as the head of our department, but given what has happened I ask that you allow me to speak candidly from my conscience: Sophia Chabysheva and John Hiller should not be allowed to continue in their behavior described here, both towards students and towards junior members of our department (for e.g., postdocs such as I).

As theorists themselves, Sophia and John should know better to tell students what I was teaching is a PhD level course. This act of providing misinformation is clearly fraudulent – and not only does it violate basic standards of academic and intellectual integrity, it sets an extremely poor professional and scientific example for our students. This is particularly egregious on John Hiller's part, given he is one of the most senior members of our department.

The disrespect that Sophia and John has shown me – interfering with my class in such back handed ways, bad mouthing my course material in front of nearly everyone else but me – also clearly violates basic standards of ethics that is utterly inappropriate for their positions as faculty members. Do we wish to see UMD physics majors back-stabbing their professional colleagues, or do we want to develop a reputation for training productive members of society that uphold high standards of professional ethics? You may recall that I ended up teaching Phys 3033 because Sophia and John approached me to help them out. Despite that, once the Fall 2015 semester began Sophia regularly came to me to ask about what I was teaching and how many people were attending my class; I openly offered the relevant information, only to find out later John used my class attendance to fuel his attacks against my teaching.

Finally, please let me assert on broader terms, that I firmly believe students' enthusiasm for physics and mathematics – including tackling challenging topics that nonetheless are integral to a deeper understanding of the fundamental laws of Nature – should be strongly encouraged, and most certainly should not be put down nor dismissed. Especially for John Hiller, I do not believe his behavior towards my students – suggesting they cannot handle my Phys 3033 material – is an isolated incident, but quite possibly reflects his attitude toward educating students in general. Ever since arriving at UMD I have interacted with the theory graduate students, and have witnessed their strong desire to learn and grow. [Graduate student name deleted to

protect his identity] is an excellent example. I understand from [name deleted], however, while taking classical mechanics from John Hiller, [name deleted] took the initiative to ask John for supplementary classical mechanics notes (written by Thomas Jordan), only to be made to jump through hoops (answer 2 problems from class) so as to first prove [name deleted] was "capable of using the notes". John had also told [name deleted] not to ask questions out of the syllabus, and not to use methods not taught in class to solve problems. In other words, John created (at least for [name deleted]) a very discouraging and off-putting learning environment. Of course, John Hiller should be given the opportunity to respond to these experiences I learnt directly from [name deleted] himself, but if they hold true – it is not only especially appalling (given, we are talking about graduate level training here), it is also consistent with his willingness to put down the contents of my Phys 3033 class.

Sophia Chabysheva and John Hiller owe my students a serious apology. For their professional reputations and to set an example for academic honesty and integrity, Sophia and John really need to reach out to my students – I can help with that, since I have the class list – and clarify how they have deceived my students into thinking my course material was inappropriately difficult. They also need to acknowledge they have held back the students' academic development.

Sophia and John most surely owe me an apology too. But I am my own person, and I would definitely have ran the course in the same way, all over again – even if I knew beforehand they would back-stab me the way they did. I will thus let their own conscience speak to themselves, on how they should respond to me.

I apologize for this lengthy e-mail, Marc. Thank you very much for taking the time to read, assimilate, and act upon this.

Yours respectfully, Yi-Zen