

Meet Featured Alumna Amanda Ely '00

Biography:

Amanda (York) Ely grew up in Homestead, FL. She graduated Cum Laude from Stetson University in 2000 with a BS in Physics and a minor in Mathematics. She continued her education at the University of Florida where she received her MS and PhD in Biomedical Engineering in 2003 and 2006, respectively. While in graduate school her research focused on biomaterials, ranging from investigating adhesion forces between sensitive tissues and biomaterial implants to the synthesis of protein microspheres for cancer treatment. In 2007, shortly after completing her educational journey she married her high school sweetheart on the University of Florida campus. They now have a son, Connor, and still live in Gainesville, FL. Amanda is currently a research scientist at RTI Biologics, Inc., a biotech company focused on providing sterile allograft and xenograft implants for spinal, sports related, dental and other specialty surgeries.

Amanda enjoys spending time with her family anytime she can. She is an avid sports fan and enjoys supporting her Florida Gators!



Open Letter to Physics Majors:

I had always been one of those kids that enjoyed school, loved to learn new things, and always wanted to know how things worked. In other words: a true nerd, through and through. My love of the sciences followed me from elementary school through high school, and right on into college. I came to Stetson as a freshman already decided that I was going to be a physics major. I didn't stumble upon it once I got there – I just already knew. It was my favorite class in high school, so why not? I chose Stetson ultimately because I was terrified of the huge schools like UF or FSU. Once I got there, I immediately loved it. In particular I loved the physics courses, from Dr. Lick's demonstrations in University Physics to hands-on labs. Over the course of my 4 years at Stetson, I decided to "dabble" in chemistry since I enjoyed it in high school. In my senior year, I began to ponder where I wanted to go next. What was I going to do? High school physics teacher? PhD in theoretical physics? While these (and others) seemed like viable options, none of them called to me. The idea of medical school had some appeal, though I don't consider myself a "people person" and didn't feel the need to interact with patients on a daily basis. Then I ran across a flyer for Biomedical Engineering and thought that would be my ideal: a mix of physics & engineering along with chemistry & biology. In the Biomedical Engineering program at UF (now a full-fledged department) I found my intellectual home: biomaterials. Though I entered Stetson with a strong affection for physics, I realized that while physics laid the fundamental principles for engineering, my true passion was more rooted in biology and chemistry after all. The rest is history.

So, I guess my piece of advice to you is one that has been said before but bears repeating: be open and willing to investigate things outside of physics and the conventional careers that come along with it. That being said, the following are just a couple of reasons that I am thankful that I pursued my education at Stetson and in the physics department in particular:

- Small class sizes foster a much more productive learning environment. I taught some laboratory sections for my advisor's courses in graduate school. This experience made me appreciate my education at Stetson. I personally feel that I got much more out of my education than 90% of the undergraduates I taught. I didn't rely on my classmates (all 5 or 6 of them, at best) to get through my homework and memorize old tests passed down from class to class – I actually learned.
- My professors knew me as a person. They knew my name and were always willing to take extra time when needed.
- Though I did not have the engineering-specific coursework of some of my peers, physics laid all the groundwork I needed.

- I got relatively more hands-on research experience at Stetson, especially during my SURE grant experience. I was surprised to learn of the small amount of practical lab time that my undergraduate students and some of my fellow graduate students coming from other universities had. Even if your future career takes you in a direction other than physics, that lab time and research experience is invaluable.
- Though you may not know yet, begin considering what type of career you want to have. I am talking long-term, not just what program to look for in graduate school. Do you enjoy hands-on work and being in a lab setting? Do you have upper management aspirations? Would you like to someday start/run your own consulting firm or company? I can only speak from my experience in biotech R&D but had I looked more long-term, my educational and career choices may have been different. These questions will also help to guide you as you look for employment as well, since all company cultures are different. I love my job, but keep in mind that the higher up the education ladder you go, the more managerial your job may become (which I never considered – I miss the lab 😊).

I hope you enjoy your experience at Stetson as much as I did. Good luck doing whatever moves you 😊

-Amanda

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