Scholars Program

Scholarship Support | Supplemental Instruction | Academic Support & Mentoring

The WLAC Stem Scholars Program is funded through a National Science Foundation Grant and is designed to assist under-represented minorities and low-income students prepare for careers in science. Participants receive up to $5,400 per year in scholarship funds, supplemental instruction, networking opportunities, and mentoring from WLAC's distinguished science faculty. For details, visit www.WLAC.edu/Science

Armin Monfared - From ESL to JPL

Armin spent the summer learning from and networking with the NASA professionals behind the Mars exploration program at the prestigious Jet Propulsion Laboratory (JPL) in Pasadena, California. He was selected to be part of their summer internship program designed for outstanding college undergraduate students.

While Armin was born in the United States, he spent his childhood in Iran. At age 14, he left his family and friends to return to America. Speaking no English, he moved in with an older aunt and enrolled at Santa Monica High School in the ESL track. "It took about 2 years," to learn English, explained Armin and watching cartoons played a big role. Despite the language obstacle, he still managed to graduate on time. From high school, Armin made several unsuccessful attempts at completing programs at another community college.

"I lacked direction," he explained. Next, he decided to study music – guitar – for a while. Finally, it was time to give college another try. A class at West reignited a childhood interest. "As a kid, everyone in my family knew I had a passion for building – okay maybe breaking things. I wanted to see how things worked." This, explained Armin, is why he had a large collection of broken toys and why today he aspires to be a mechanical or aerospace engineer.

Armin is confident that West has sufficiently prepared him for UC Berkeley where he hopes to transfer. In addition to bringing more focus to his college effort this time, he believes West offered some advantages. "The atmosphere in class is less stressful and communication with teachers is better" than at the previous college, he said. And, with a big smile, he added that he is a big fan of the parking at West as well.

Armin became aware of the JPL opportunity through West's STEM Scholar program of which he is a member. A culminating project for him last year was presenting his research at the Honors Transfer Council of California held at UC Irvine. He discussed how the voyagers 1 and 2 used the gravitational pull of other planets in our solar system for a boost in speed in order to save tons of space propulsion fuel and how travel to other solar systems could become reality one day using a technology that is being researched called hyper-loop. "Hyper-loop," he explained, "uses a negative pressure field requiring lots of power in order to bend two points in space closer to one another to travel long distances in shorter period of time."

Jessica Neal - Harnessing Power

Despite her youthful looks, Jessica has been out of high school for over 10 years. In fact, she already has a Bachelor's Degree in Audio Production. But now, she is making the transition from sound engineering to material science engineering where she hopes to one day "apply physics to chemistry and biology to harness energy storage and delivery processes inside the body, for external applications," she said. In other words, if we can better understand the way the human body so effectively stores and uses energy, then we can apply that to how we power complex and everyday technologies.

Jessica spent last summer working in a hands-on, paid internship at a UCLA Material Science research lab, a participant in the CEED RISE-UP program (Center for Excellence in Engineering and Diversity Research Intensive Series in Engineering for Underrepresented Populations). Her team was working on a project commissioned by a commercial technology company to create higher power and energy storage in rechargeable batteries. Part of her work was to create and refine a material called Aerogel. A single small batch took two weeks or more to create in the lab. "There's a lot of waiting in material science," she laughed. But you fill it with research.

Prior to enrolling at West, Jessica worked in music. "It was intimidating to come back to college when I started – like writing with your left hand for a right-handed person." But, she said, "West is amazing! It feels more like family. The amount of effort faculty give is unparalleled."

When asked what drew her from music to science, Jessica said science has always been an interest of hers. At 6, she fondly remembers getting her first chemistry set. She added, her dad who instilled in her logic-based thinking, reminded her recently that as a child, she was always searching for the answers. "I've always wanted to know 'Why? Why? Why?'"

Music does remain part of her life. In addition to science classes, she was sure to enroll in a piano class. "Music affects the way you process things."

Jessica's goal is to transfer to UCLA in Fall 2015 to complete her second Bachelor's Degree and a Master's Degree. After a career in Material Science, she would like to teach and perhaps have the same important impact on others as her high school physics teacher had on her. But later in her life, she definitely would like to work in theoretical science. "Everything we understand started with a theory." For Jessica, her life dream would be adding to the body of important scientific thought.