

## Michelle Morency Receives First Place Poster Presentation at IMECE 2016

**PHOENIX, AZ (November 2016)** - Department of Mechanical Engineering student, Michelle Morency, travelled to the International Mechanical Engineering Congress and Exposition conference to present her research poster titled "Efficient Dialysis Methods for Processing Regenerated Silk Films" and received the First Place award in the American Society of Mechanical Engineers (ASME) International Undergraduate Research & Design Expo.

Michelle conducted her research work last summer during a National Science Foundation Research Experience for Undergraduates (NSF REU) at Georgia Tech, called Research Experience for Veterans in Advanced Manufacturing and Entrepreneurship (REVAMP). She carried out processing methods for silk protein films and investigated their mechanical strength. Among biocompatible materials, *Bombyx mori* silk has become a hot commodity, desirable for its tensile strength and biodegradable qualities. The processing methods for silk films are quite commonplace; however, the adaptability of these methods for industrial production is not promising, despite the medical device potential for implants, tissue scaffolding, and drug delivery. Michelle developed a novel method that facilitates more efficient biochemical dialysis through an increased surface area of semipermeable dialysis tubing. This method may allow these films and other silk fabricated materials to be one step closer to easy production in the future as silk makes its transition from research labs to advancing national health through use *in vivo*.

