



EASTERN MICHIGAN UNIVERSITY ORTHOTICS & PROSTHETICS

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BREAKING BOUNDARIES WITH BEBIONIC



On January 17th, the MSOP students were treated to an educational talk and demonstration from Bebionic. The students were introduced to the Bebionic hand and were given the opportunity to explore the 14 selectable grip patterns and hand positions the hand provides. The life-like hand can be programmed to mimic normal hand motion, allowing everyday use and functionality much easier for an upper limb amputee. This was an awesome opportunity that allowed students to experience the leading-edge technology of upper extremity prosthetics. Thank you to JCascade, oshua Clark, and Bebionic for volunteering their time and resources.

PROGRESS THROUGH PATIENT MODELS

An integral part of our students' O&P education is the practice and learning that is achieved through interactions with patient models. Each semester we have several courses that require patient model interactions in both orthotics & prosthetics. We are fortunate enough to have a new facility that can accommodate 5 patient models per session. Students are able to evaluate, cast, fabricate, and fit devices to their patients. This interaction provides hands-on knowledge and experience, which is invaluable preparation for students as they enter the O&P profession. If you are interested in participating as a patient model, or know of anyone who may be interested, contact Wendy Beattie @ 734-487-2814

FIRST-YEAR ROBOT PROJECT

At the end of the fall semester, first year students were given the opportunity to present the finished products of their semester-long Biomechanics robot assignment. Working together in five groups, students constructed a robot from prosthetic components and a foam molded torso. Powered by a handheld drill, the robot was required to sit in a chair, and then return to a standing posture.

To complete this project, the students applied concepts learned in their Biomechanics class. The main focus was balancing the moments acting on the robot's joints to produce desirable motion. With unique variations, each group designed a pulley system to successfully create these motions.

Overall, this robot project aimed to enhance student communication and problem solving, and gave students opportunities to work with prosthetic componentry and tools. First-year student, Kameron Mitchell, shared his thoughts on this experience: "how amazing the human body is at producing forces."



STUDENT PROFILES: CLASS OF 2017

Joel Stunz

Hometown: Harrisonville, Missouri

Educational background: Corporate Fitness, University of Central Missouri

Topic of Capstone Project: Efficacy of prophylactic foot orthoses use.

What got you interested in this topic?

Wanted to get to the bottom of utilizing foot orthoses prophylactically instead of just for pain or when a problem happens. People recommend foot orthotics randomly and to whomever, but is this ethical?

Brief overview of your research:

I studied reported pain and various shoe wear in different countries. I decided to test if foot orthoses will prevent pain in at risk populations, - obese, 45 or older



STUDENT PROFILES: CLASS OF 2018

Peter Horning

Undergrad: Liberty University

Hometown: Lancaster, PA

Why O&P?: It was the first job I shadowed that I was genuinely fascinated by. I love that it covers the whole spectrum from literally getting your hands dirty to in-depth knowledge of the body and mechanics. And most of all, it is a great opportunity to be involved in the lives of others in a special way.

What projects are you working on outside of class? :Research studies involving outcome measures and validating an orthotic modification technique.

What are you most excited to learn about/work on this semester: It has been a fun challenge getting to work with real patient models for the first time.



UPCOMING NEWS & EVENTS

March 18th - OPAF first swim, dive, & kayak. This event will be hosted at the Jones swimming pool in the REC IM building at EMU from 10am to 3pm - ***FREE ADMISSION*** Please contact Robin Burton for required scuba preregistration medical screening at ROBIN@OPAFONLINE.ORG OR 980-819-9404. All other registration should be done at WWW.OPAFONLINE.ORG

Information Session - The MSOP program hosted another successful event on January 28th. We had 12 people attend the event, as well as 5 more online. The next information session will be held on **February 11th**. For any questions contact Wendy Beattie @ wbeattie@emich.edu