

# Michigan Tech

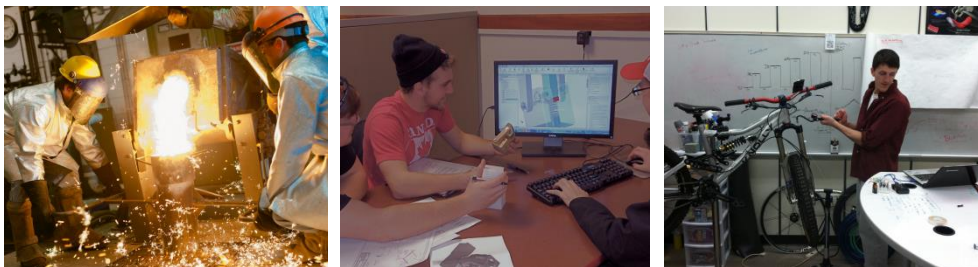
Create the Future



## Michigan Technological University

"We Prepare Students to Create the Future"

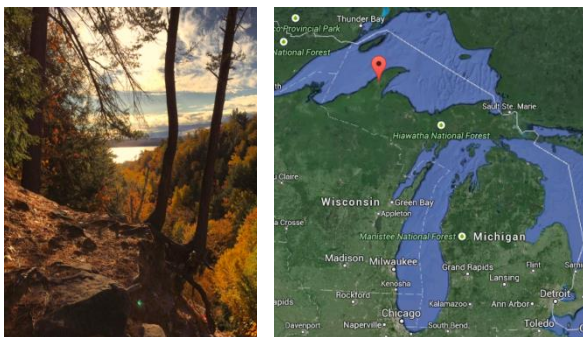
Michigan Technological University (Michigan Tech) is a public research university sporting an ABET accredited engineering college with degree programs in Biomedical, Chemical, Computer, Civil, Environmental, Electrical, Geological, Materials Science, Mechanical, and Bachelor of Science in Engineering. Michigan Tech is well represented by its vision statement – "Michigan Tech will grow as a premier research university of international stature, delivering education, new knowledge, and innovation for the needs of our technological world."



## Enterprise Program

What is it? Student Industry Experience

The Michigan Tech Enterprise Program is student-driven program supporting multidisciplinary teams that work like companies on real world client driven projects. Many teams design, manufacture, and test their own prototypes in an end-to-end project development experience. Some teams prepare designs for national competitions and some projects take teams abroad. Teams collaborate with clients from industry, communities, and government organizations, and work closely with a faculty advisor. Current Enterprise teams include Aerospace, BoardSport Technologies, Nanotech Innovations, and Robotics Systems just to name a few.



## Keweenaw Peninsula, MI

The Outdoor Enthusiast's Playground

The Keweenaw Peninsula, home of Michigan Tech, is the northernmost part of Michigan's Upper Peninsula. Surrounded by Lake Superior, filled with dense forest, rivers, waterfalls, and trail systems, the Keweenaw is the perfect place for any outdoor excursion. With four distinct seasons and an average of 220" of annual snowfall, it's no wonder that adventure seekers feel at home in the Keweenaw's small town environment.



## Why Sponsor The G.E.A.R Enterprise Team?

A Truly Unique Opportunity for Your Company

The GEAR Enterprise seeks to take advantage of the ideal location for innovation in outdoor recreation equipment by bringing together highly motivated engineering students from all disciplines and a growing Outdoor Adventure Program. As a partner or sponsor your benefits include a fresh look at design challenges and potential solutions through the eyes of an unbiased team, access to university facilities and faculty experience, exposure to the latest tools, techniques, and theory from a premier institution, firsthand observation of your future workforce, and networking with talented students who have strong technical and business skills as well as passion for the outdoors.



## General and Expedition Adventure Research (GEAR) Enterprise Team

Michigan Technological University



## Outdoor Adventure Program

From the Classroom to the Wilderness

Michigan Tech's Outdoor Adventure Program connects students to the outdoors through guided trips, leadership training, and equipment rental. The program has continued to expand rapidly since its beginning in 2006 through support of the university administration, the use of services by students and the local community, and the dedication of its staff.

## GEAR Enterprise – Faculty Advisor



**Brett Hamlin, PhD** [bhamlin@mtu.edu](mailto:bhamlin@mtu.edu) Office: (906)487-1965  
Dr. Hamlin's teaching interests include graphics, visualization, solid mechanics, design, and thermo sciences. His research interests include educational methods, spatial visualization, heat transfer, and biomechanics. His current research projects are the development of the First Year Engineering Program, and modeling heat flow in bone tissue. Dr. Hamlin has published one textbook and several articles. He enjoys sailing, skiing, and most other outdoor activities. He currently advises Michigan Tech's SAE Mini Baja Team and is serving on MTU's Strategic Planning Group.

*PhD, Mechanical Engineering Engineering Mechanics, Michigan Technological University*  
*BS, Mechanical Engineering, Michigan Technological University*

## GEAR Enterprise - Student Leaders



**Carly Joseph** (Co-Leader) [cjoseph@mtu.edu](mailto:cjoseph@mtu.edu)

Carly is a first year Materials Science and Biomedical Engineering Student at Michigan Tech. She actively co-researches Engineered Biomaterials and is a trip leader at the Outdoor Adventure Program. Carly has experience backcountry snowboarding in Argentina and the US. Carly is a Varsity Cross Country and Track & Field athlete, and enjoys split boarding, hiking, and traveling.



**Ross Perigo** (Co-Leader, Founder) [rperigo@mtu.edu](mailto:rperigo@mtu.edu)

Ross Perigo is a Fourth Year Mechanical Engineering Major at Michigan Tech. He is a trip leader at the Outdoor Adventure Program. Ross has product development, design validation and prototyping experience that he gained while on an 8 month Mechanical Engineering internship at DENSO International America. Ross enjoys Snowboarding, Hiking/Backpacking and Mountain Biking.

## MISSION STATEMENT

The General and Expedition Adventure Research (GEAR) Enterprise is an enterprise designed to provide students professional experiences with industry-fueled projects and team-based learning through the design, testing, analysis and production of outdoor adventure and expedition equipment.

## GEAR ENTERPRISE GOALS AND OBJECTIVES

1. To produce new and innovative products for outdoor recreation, incorporating the movement in outdoor recreation goods to be designed as lightweight, durable and cost effective.
2. To procure new industry partners as well as partner with student organizations; to meet partners needs through production of quality product.
3. To develop students interpersonal skills in a professional engineering environment.
4. To promote growth of student engineering knowledge through team project-based engineering design processes.
5. To diversify application of enterprise focus based in a student-orientated environment
6. To utilize the environment of Houghton, Michigan as a unique opportunity to perform design validation for products designed by Enterprise.
7. To develop a business relationship with the Michigan Tech Outdoor Adventure Program, to integrate students into the engineering process