

2019 Michigan Tech Concrete Canoe Newsletter



Michigan Tech Concrete Canoe

This year, the Michigan Tech Concrete Canoe Team had their research and development start at the end of the 2018-2019 season. They are working assiduously to bring their best foot forward and accomplish so much more. With the new beginning, and the concentration on improvement and success, the team looks forward to the upcoming season.

2018-2019 Season in Recap

With the Father's Day flood of 2018, bringing over seven inches of rain in the course of nine hours to the Houghton area, and leaving the community with washed away roads, and millions of dollars in damage, the team decided on a theme that revolved around the Great Lake beaches in support of the recovering community. *Driftwood* exemplified multiple features from last year's canoe, Backcountry, such as straight line tracking and paddler efficiency. With the 2018 Regionals races being canceled, the team held a mock race day in the portage to evaluate the performance of Backcountry. Feedback from the paddlers lead Conner Reed to design a hull that slimmed the width along the entire length of the boat and shifted the beam to the stern by eight inches.



Regional Competition Breakdown	
Presentation	1 st
Final Product	2 nd
Technical Paper	1 st
Races Overall	N/A
Final Results	1 st

2019 Michigan Tech Concrete Canoe at a Glance	
Name	Driftwood
Weight	164 lbs.
Width	27.1 in.
Length	20 ft.
Depth	12.7 in.

2019 Regional Competition

Last year's North Central Regional Competition was held in Ann Arbor, MI at the University of Michigan. This was a very successful year for Michigan Tech, as the team placed 1st in the presentation and technical paper categories, and 2nd in the final product. Unfortunately, due to cold and rainy weather the races were canceled. Overall, the team placed 1st in the Regional Competition, and earned the team a spot to compete at the National Competition!

This year the team was able to bring 30 members to the Regional Competition. This would not be possible without the support of our generous donors. The team would like to extend our gratitude to those that made it possible for the team to bring all of our members to the competition.

2019 National Competition

The 2019 ASCE National Concrete Canoe Competition was held at Florida Institute of Technology in Melbourne, Florida. The team was proud to finish 10th out of 24 schools at this year's National Competition.



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National Competition Breakdown	
Presentation	7 th
Final Product	11 th
Technical Paper	13 th
Races Overall	8 th
Women's Endurance	7 th
Men's Endurance	11 th
Women's Sprint	6 th
Men's Sprint	8 th
Coed Sprint	10 th
Final Results	10 th

This Season: 2019-2020

The team is excited to announce that our theme this year will be Construction! After doing many themes focused on winter in the past, the team thought that we should focus on Michigan's other season, Construction. This year the team has been experimenting with different materials in the mixes to try to create an intriguing construction themed project.

Rule Changes

This year, ASCE has presented us with new rules that are very different than in previous years. A few of the major rule changes include a Request for Proposal, and labor hour tracking. The biggest change is the Request for Proposal, where teams now need to submit a proposal estimating the cost of materials and labor to design and build a concrete canoe. The team also needs to track the labor hours performed in the design and construction of the boat as a part of the new rules. The rules state a list of specific roles with different wages for each role, along with set costs for specific materials that will help us create our final cost estimation proposal. A benefit of these rule changes is that it will help prepare the team members for they may see Requests for Proposals in their future careers.



Team Leadership

This year's team captain is Mary Kinney. Mary is a fourth year Civil Engineering major with a Municipal Engineering minor and will graduate spring 2020. She is one of the paddling coaches and the presentation head.

Stepping into the Junior-captain position is Lauren Bowling. Lauren is a third year Material Sciences major with a minor in German. She is a paddler and the committee head for reinforcement and display.

2020 Regional Competition

Michigan Technological University will be attending the ASCE North Central Conference Regional Competition at Ohio Northern University in Ada, Ohio.

2020 National Competition

The ASCE National Concrete Canoe Competition will be held at the University of Wisconsin Madison in Madison, Wisconsin from June 13th-15th, 2020. Michigan Tech is working hard to earn the honor of representing the North Central Region at the national level, and aims to place among the top finishers by bringing innovative and advanced ideas to the competition.



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Donations

The team would again like to thank all of our supporters from this past year. Without your generous support and donations, the team would be more limited for our overall final product. Material donations allow us to research new ideas to design a stronger, lighter boat that will not only glide through the water on race day, but also hold up from the stresses of four paddlers. Monetary donations also help the team offset the cost of purchasing needed materials, along with competition registration, travel, and lodging expenses. This year the team estimates our total costs will be around 25,000 dollars.

We would like to thank the following departments at Michigan Tech for their support!

Civil and Environmental Engineering
Mechanical Engineering – Eng. Mechanics
Materials Science & Engineering
Electrical Engineering

We would also like to thank our corporate sponsors for their generous help!

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Lastly, we would like to thank our friends, family, and alumni for their continuous support!

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