

# McGill Concrete Canoe End-Of-Year Report

## Our Team

The 2016/2017 season marks the fifth continuous year of McGill concrete canoe.

Our team this year was composed of 65 members operating under 6 distinct subteams. Each subteam was comprised of a captain and its own set of members working on a specific aspect of the project. These subteams are: concrete mix design, hull design/structural analysis, aesthetics/product display, mold/canoe construction, paddling, and business. Concrete Canoe is one of the most diverse design teams, having 75% of its members from the civil department, while 25% are from other engineering departments, most notably mechanical, materials, and chemical. We also have members from outside of the engineering faculty. The team continued its trend of gender diversity, having an executive team made up of half males and half females.

## Our Canoe

This year, new competition rules challenged the team. The concrete cannot have expanded glass bubbles (something that is traditionally used). The canoe must float while completely submerged, AND while supporting 25 pounds of additional weight. Stain cannot be used to improve the aesthetic appeal.

On top of meeting new rules, the team aimed to improve canoe performance in the water, and to build our own mold in-house, cutting costs dramatically.

The team succeeded in creating a concrete that was very lightweight and strong while following the new rules. The canoe passed the floatation test, something that even some of the elite competition did not pass. The new aggregates used gave the canoe a beautiful finish that was complimented by many of the other competing teams and judges. The canoe's shape greatly improved maneuverability and stability in the water. The mold was successfully built in-house from wood, following a similar method that is used to construct cedar strip canoes. The new mold construction cut costs by thousands of dollars, and gave members more opportunities to learn hands-on skills.

## The Competition

The team competed in the 2017 CNCCC hosted by Laval University in Quebec City. The team is very proud to have placed 5<sup>th</sup> of 14 teams, placing higher than every other English-speaking university, most notably UBC and Toronto. Some highlights include our 4<sup>th</sup> place finish in oral presentation, only 2 points behind 2<sup>nd</sup> place, as well as our 6<sup>th</sup> place racing finish, up 6 spots from last year.

## The Future

The 2017/18 team will be led by a group of returning and new captains. The new executive team was carefully chosen based on experience, performance, and commitment to the team. Having attained majority of the goals set-out this year, higher and more ambitious goals will be set for the coming year. Team spirit will be an increased area of focus, while keeping sight on the performance approach that made us so successful this year. The team is in a position to attain continued success for many years to come.



1: Members representing McGill at the 2017 CNCCC in Quebec City