



the western engineering toboggan team



Sponsorship
Opportunities

Western  Engineering

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THE COMPETITION

The Great Northern Concrete Toboggan Race (GNCTR) is the oldest and largest student-run university engineering competition in Canada. Since its creation in 1974, it has grown to include over 400 engineering students representing over 20 teams from across Canada and the US. The GNCTR encourages students from all disciplines of engineering to carry on the tradition of teamwork, sportsmanship, innovation and school spirit.

Every year, the Western Engineering Toboggan Team (WETT) competes at the GNCTR. The 45th installment of the five-day competition will be hosted from January 30th to February 3rd, 2019 in Edmonton, Alberta by the University of Alberta.

Each team must design a toboggan that can accommodate five riders, with a running surface made entirely of concrete. The toboggan must weigh less than 350 lbs., incorporate a roll bar to protect the riders and have fully functional braking and steering systems. Each team must also choose a theme and integrate it into their toboggan display and team costumes.

Teams must excel in several different areas of the competition to be successful. At the competition, teams are graded on toboggan design and aesthetics, racing performance, technical presentations and team spirit. These elements are combined to form an overall ranking for the entire competition. The team with the best overall score is awarded the CSCE Cup as competition champions.





GOAL

This year, WETT will send 30 of its most dedicated and enthusiastic team members to Edmonton to represent Western University at the GNCTR 2019. Our team has over 100 students spanning nine disciplines of engineering. These students will work on the design, construction, and testing of the toboggan throughout the six months prior to the competition. Our team breakdown allows students to gain in-depth technical skills in several areas including metalworking and welding, CAD and mathematical modeling, concrete reinforcement, concrete mix design, and sustainable alternatives in modern, small scale construction projects. Students participate in all aspects of launching the toboggan including sponsorship relations and theme design and implementation.

OUR TEAMS



CONCRETE

The Concrete Team mixes and tests a selection of innovative concrete designs, working to optimize and create the final ski mix design. The ski is designed with the objective of creating a strong and fast running surface.



SUPERSTRUCTURE

The Superstructure Team designs and constructs the frame, steering system and braking system. These components come together to form the framework of the toboggan.



THEME

The Theme Team designs the technical display and all team apparel. Most importantly, they promote team spirit.



SPONSORSHIP

The Sponsorship Team is responsible maintaining finances and focuses on key business relations, making it possible for students to participate in the GNCTR.



THE TOBBOGGAN

CONCRETE

WETT opted for a 2x2 ski configuration last year with two skis in the front and two in the back. The skis were reinforced with 14mm reinforcing bar. The skis had tips shaped like tips of a snowboard to minimize snow buildup at the tips and had a single groove like a hockey skate along the bottom to maximize control. Additionally, this configuration acted as a toboggan tipping prevention measure.

STEERING AND SUSPENSION

Suspension was implemented in the 2018 toboggan to supplement the steering and braking systems. The toboggan was steered using a rack and pinion system for precise handling. Fox Float suspension was implemented in the front end in a pushrod format.

BRAKES

The rear suspension system was comprised of four Fox Float 3 EVOL snowmobile shocks. A drop-brake system was implemented. A spring pin held a slider connected to the suspension system. A handle was pulled from the driver's position, dropping the toboggan onto a lightweight aluminum brake fixed to the rear end.

FRAME

The toboggan frame was constructed of 1" 4130 steel chromoly tubing. The tubes were custom profiled by VR3 engineering and were TIG welded together. The frame had a 1x5 rider configuration and was designed to safely withstand all impacts.

THEME

The theme for last year was the hit film from 2001, "Super Troopers". The theme was epitomized through a technical exhibition designed as a police station, with the toboggan acting as the police cruiser parked outside.





PAST ACHIEVEMENTS

The WETT has had numerous successes at the competitions over the past few years, which are outlined below. By sponsoring WETT, you will be supporting a group of ambitious and dedicated students in pursuing their passion for engineering and provide the opportunity to keep the upstanding tradition of WETT's success in GNCTR.

2018 AWARDS:

- 5th Place Overall
- 1st Place in Concrete Reinforcement
- 1st Place in Technical Display

2017 AWARDS

- 2nd Place Overall – Runners Up
- 1st Place in Theoretical Toboggan Design
- 1st Place in Braking Performance
- 1st Place in Concrete Mix Design
- 1st Place in Concrete Reinforcement Design
- 1st Place in Technical Report Delivery

2016 AWARDS:

- 1st Place Overall – Champions
- 1st Place in Theoretical Toboggan Design
- 1st Place in Braking Performance
- 2nd Place in Team Spirit
- Most Improved Team



We would like to thank you for your interest in WETT 2018-2019. Your support helps not only this year's competitors, but to all future competitors and engineering students who will strive to win in 2020 and onwards!



By sponsoring the Western Engineering Toboggan Team, you will be supporting student involvement and development beyond the classroom curriculum. You will help students gain exposure to a diverse atmosphere that will teach them about multi-disciplinary teamwork, real-world problem solving, time management, technical writing and group logistics. Your support will help stimulate development outside the classroom and help build Canada's top engineering undergraduates.



By sponsoring our team, you or your company can expect:

- A contribution towards the career development of future engineers and potential employees in many areas, including project management, team-work, and hands-on technical skills.
- Media exposure at the local and national level during team events through television, newspaper, internet and social media outlets.
- Increased brand recognition among Western University as well as other Canadian University students from local exposure and advertising at GNCTR.
- Dedicated student expert on all things related to your firm who can promote company initiatives at internal and external events.
- Tax exemptions for donations.

SPONSORSHIP LEVELS

The Western Engineering Toboggan Team would not be possible without your help. Your support will help cover our construction costs, travel and competition expenses. The four sponsorship packages below detail the available levels of sponsorship. Any of the packages can be customized to suit your needs. Sponsorship through donations of labour, materials or other technical services are also appreciated, and can be arranged by contacting the Sponsorship Coordinator at wett.sponsorship@gmail.com.

Sponsor Incentives	Gravel <\$500	Asphalt \$500- \$1,500	Concrete \$1,500- \$3,000	Reinforced Concrete >\$3000
<i>Race Day Invitation</i>	✓	✓	✓	✓
<i>Access to WETT Member Resume Database *Participating Members Only</i>	✓	✓	✓	✓
<i>Logo and Link on Team Website</i>	✓	✓	✓	✓
<i>Logo on Toboggan</i>		✓	✓	✓
<i>Company Promotional Material & Information at Technical Exhibition</i>			✓	✓
<i>Logo on Banner at Technical Exhibition</i>			✓	✓
<i>Logo on Team Shirts</i>			✓	✓
<i>Sponsorship Plaque</i>				✓
<i>Dedicated Member Expert on your Company for all internal and external WETT events</i>				✓



June 2018

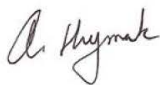
Dear Potential Sponsor,

Western Engineering seeks to provide the best possible experiences for our students to learn and develop through project based applications of their courses. The **Western Engineering Toboggan Team (WETT)** is one such project. This group of hard working and enthusiastic students will design and build a concrete toboggan for competition in the Great Northern Canadian Toboggan Race (GNCTR), this year being held in Edmonton, Alberta from January 30th to February 3rd, 2019.

GNCTR 2018, held in Waterloo, Ontario, yielded a 5th place overall finish for the Western Engineering Toboggan Team, with first place awards for Best Concrete Reinforcement Design, and Best Technical Display. At the 2017 competition held in Winnipeg, Manitoba the Western Engineering team did exceptionally well placing second overall. They received first place in Overall Toboggan Design, Braking Performance and Concrete Design. Awards were given to the Western Engineering Toboggan Team for Best Theoretical Toboggan, Best Braking Performance, Best Concrete Mix Design, Best Concrete Reinforcement Design and Best Technical Report.

By choosing to sponsor this team, not only would you be supporting this excellent group of undergraduate students as they once again prepare for the national competition, but you would also be exposed to a hard-working and creative group of students that give you the best possible opportunity to seek potential employees. The team would be pleased to acknowledge your sponsorship and support throughout the year at local events, during their community and school outreach and of course at the 2019 GNCTR. Associating your company and your brand with the Western Engineering Toboggan Team is mutually beneficial, so I encourage you to become a partner in our success.

Best Wishes,



Andrew N. Hrymak, PhD, P.Eng.,
Dean, Western Engineering



Alex Woodcroft Co– Captain

Alex is finishing his 16 month work term at Dr. Oetker Canada as a project engineering intern, and returning to Western for his final year of undergraduate Mechanical Engineering. He has been involved in WETT for two years now, first co-leading the superstructure team with now co-captain Ben Morrish, and then leading the composite materials design team in his second year. Ben and Alex strive to lead the team to a first place overall finish this year using a combination of innovative approaches and tried and true designs.



Ben Morrish, Co – Captain

Ben is finishing his Internship and will be completing his final year of Undergraduate Studies at Western University in Mechanical Engineering. He has been extremely involved with WETT since first year, from participating in mix nights to leading the Superstructure group in third year. As a result, he has attended the last 3 GNCTRs. This year he, along with Co-Captain Alex Woodcroft, will attempt to lead the group to another victory in Edmonton.



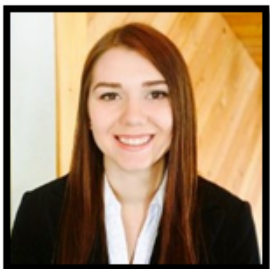
Matt Owens, Sponsorship Coordinator

Matt is an Integrated Engineering Student currently on his 16 month work term with an Engineering Consulting Firm. He has been involved with WETT for the past two years, being involved with concrete mix nights and the design on the ski profiles as well as being a member of the welding team last year. Matt will work hard to ensure the team has the resources it needs to get another first overall in Edmonton in February.



Brandon Clark, Concrete Co – Leader

Brandon Clark is currently studying Structural engineering at Western University and will be graduating in 2019. Brandon has been heavily involved in WETT for the past three years, he competed at GNCTR 2016, 2017 and 2018 and has lead both concrete mix nights and sub groups. Brandon will be returning in the fall from a 16 month internship working in the structural department at the Ministry of transportation (MTO).



Maisie Fichuk, Concrete Co – Leader

Maisie is entering her fifth and final year of Civil and Structural Engineering. She has been involved with WETT since 2015, working primarily on the concrete team as a general member and mix night leader. Maisie is returning to school after 15 months of working at Ontario Power Generation as a Project Engineer on the Darlington Nuclear Refurbishment project. She has also previously worked at T.B.T. Engineering Consulting Group as a Construction Inspector on the Noden Causeway Bridge Rehabilitation.



Jamie Calvert, Superstructure Co-Leader

Jamie is currently finishing an internship with the Engineering Construction group at Union Gas and will be entering his 4th year of Mechanical Engineering in September. He has been an involved member of WETT in previous years, contributing to the structural design of the toboggan while serving as co-leader of the welding team. Jamie is excited to apply the project management skills he has acquired during his internship to improve the design and construction of the toboggan.



Jordan Zizek, Superstructure Co-Leader

Jordan is currently entering his 4th year of Mechanical Engineering at Western University. He has been a dedicated member of WETT in previous years, where he was a Co-leader on the welding team and has been a contributing member of the conceptual design. Jordan is currently returning from an internship with Ontario Power Generation in the Mechanical Plant Design department. He is looking forward to applying the design experience he has gained to improve this year's toboggan design.



Liam Walsh, Construction Manager

Liam is entering his third year of Integrated Engineering at Western come the Fall Term. He has been on WETT for two years and has contributed heavily to the construction of the toboggan in his second year from commencement to the completion of the build. Liam completed a co-op term with Morrison Hershfield in 2017 and just completed a co-op term with The Miller Group. He is looking forward to helping bring Western Back to first place in Edmonton.



Shannon Copeland, Theme Leader

Shannon is entering her second year at Western University studying Mechanical Engineering. Shannon was heavily involved in WETT during her first year of university as a general member attending weekly concrete mix nights and helping complete the team's tech-x display. Her hard work and dedication to the team resulted in her being selected to attend GNCTR 2018. Shannon hopes to challenge her creative skills with working with the team to ensure Western is successful in the theme category at GNCTR 2019.



CONTACT

For more information, please contact
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