

2015 UNIVERSITY OF ALBERTA



GREAT NORTHERN CONCRETE
TOBAGGAN RACE
SPONSORSHIP PACKAGE

WHAT IS GNCTR?

The Great Northern Concrete Toboggan Race (GNCTR) is a national engineering competition hosted annually by a different university in Canada in late January. The competition was created in 1972 when the Alberta chapter of the American Concrete Institution recognized the need for a Canadian equivalent of the American Concrete Canoe Race. The first competition occurred in 1975 in Red Deer, Alberta and from that year forward the event has remained an entirely volunteer run event.

The competition continues to grow in popularity with approximately 600 participants from one American and twenty Canadian engineering programs attending the 2014 competition. The University of Alberta has been a part of this competition since its inception in 1975 and has maintained a strong presence at the competition ever since.

GNCTR provides students with an opportunity to meet people in the industry, building networks and relationships within the professional community. In addition GNCTR challenges participants to increase the quantity and quality of their technical knowledge of materials and structures, while handling the responsibility to deliver a successful product on time and on budget. The atmosphere is team-oriented and fun, with a focus on hands-on participation.

The teams compete in the following judged categories:

- Toboggan Design (originality, safety, construction etc.)
- Justification and Presentation
- Race Day Performance
- Spirit & Costumes

WHAT IS CONCRETE TOBOGGAN?

Each team is required to design and construct a safe toboggan with a concrete running surface, a superstructure and a functional braking system. The overall goal is to complete the racecourse with the shortest time. Prior to racing, all toboggans must undergo and pass a safety inspection.

There are five basic rules that govern the design of each toboggan registered at GNCTR:

- The running surface must be at least 30% Portland Cement concrete
- The toboggan must carry five people safely
- The toboggan must have a functional roll-bar
- The toboggan must have a functional and safe braking system
- The toboggan must have functional steering system
- The toboggan must weigh less than 300 lbs., excluding riders

The 2015 competition will be held at the University of British Columbia Okanagan in Kelowna from January 21st to January 25th. For a full set of rules and more information on this year's competition please visit the 2015 host committee website: <http://gnctr2015.com/wp/>.

RECENT UNIVERSITY OF ALBERTA GNCTR

ACHIEVEMENTS

University of Alberta's GNCTR team has proven to be competitive in every category of the competition. An outline of accomplishments of the University of Alberta team is included in the table below. The University of Alberta team did exceptionally well in 2014, receiving the Canadian Society for Civil Engineering (CSCE) Cup for highest overall score. The University of Alberta aims to continue this success at GNCTR 2015.

| Year | Team Name | Location | Achievements |
|------|-------------------------|-----------------------------|---|
| 2015 | Prohibition | Kelowna, British Columbia | TBA |
| 2014 | Alberta Beef | London, Ontario | 1 st Overall Winners of the CSCE Cup Most Sustainable Team 1 st Theoretical Toboggan 1 st Concrete Mix Design 1 st Concrete Reinforcement Design 1 st Braking Design 1 st Steering Design 1 st Original/Innovative Design Holcim Sustainability Award *and many 2 nd and 3 rd placements |
| 2013 | Globo Gym Purple Cobras | Vancouver, British Columbia | 1 st Brake Design 1 st Theoretical Design 3 rd Concrete Mix The "Mingler Award" |
| 2012 | Tron | Calgary, Alberta | Most spectacular run |
| 2011 | Flock of Sheep | Edmonton, Alberta | Hosted competition |
| 2010 | Bananas in Pajamas | Hamilton, Ontario | 1 st Overall Winners of the CSCE Cup 1 st Brake Design 1 st Brake Performance 1 st Costumes 1 st Technical Score 2 nd Team Spirit |

ABOUT THE UNIVERSITY OF ALBERTA, FACULTY OF ENGINEERING

The Faculty of Engineering at the University of Alberta is an internationally recognized program, ranking 5th in Canadian institutes for both undergraduate and graduate engineering programs in the 2013-2014 QS Top Universities.

The University of Alberta offers 21 engineering programs. In addition, the Faculty of Engineering has the second-largest Engineering Co-op Program in Canada, with more than 1,400 paid student placements per year.

Recently, the Faculty of Engineering has added approximately one million square feet of new teaching, research, and study space while growing professionally, hiring 130 new professors since 2000.

The Faculty of Engineering's mission is to:

- Produce engineering graduates of choice for employers and postgraduate schools and to produce graduates who can carry out forefront engineering design and research;
- Produce nationally and internationally recognized engineering research; and
- Provide high-quality service to the engineering profession and the external community.

(Source: <http://www.engineering.ualberta.ca/>)

GNCTR 2015 SCHEDULE

The GNCTR competition consists of three main components. The schedule of events for the 2015 competition is shown below:

- *January 21st*: Arrival, Registration, and **Opening Ceremonies**
- *January 22nd*: **Activities Day**, where the teams will participate in cross-team activities and get to know one another
- *January 23rd*: **Technical Display Day**, during which the teams showcase the technical aspects of their toboggan in the form of a constructed display and technical presentations. Teams also use this event to express their team spirit and creativity
- *January 24th*: **Race Day** and **Awards Banquet**, which involves the teams transporting their toboggans to the ski hill and racing them. The sleds are judged on their race time, braking distance, and steering ability through a number of runs. The evening of race day will also include the closing banquet, where the prizes are awarded and the host school of the next years' event will be announced
- *January 25th*: Departure Day

UNIVERSITY OF ALBERTA'S PREPARATIONS

Our goal as a team is to ensure a successful, safe competition for all team members, while having fun and meeting future colleagues from across the country. In order to accomplish this, our team needs to be organized, committed to a schedule, and dedicated to the quality of our workmanship.

Our team is composed of many different facets, ranging from the design and construction of the superstructure to costume design. Careful project management is essential for successful operation of the team. To achieve this, our team is led by an executive committee that was elected in April 2014.

Many positive experiences were taken away from the 2014 competition by the University of Alberta team. Great technical scores in both toboggan and concrete design were achieved. The University of Alberta has always had a strong focus for the technical design aspects of the competition. The 2014 emphasis was sustainability, which was recognized by the GNCTR organizing committee.

This year the University of Alberta GNCTR team aims to finish in the top 3 for sustainability, as well as continuing to push the boundary for innovation in sled and concrete designs.

Each year, a unique theme is chosen for the toboggan. For GNCTR 2015, the University of Alberta team has chosen the theme of the Prohibition era. This theme offers creative opportunities for costumes and the technical display, and our team is confident that this theme will stand out from our competitors.



The design of the sled structure and the concrete mix design will be completed by September 2014. Completing the design early yields sufficient time to source materials for construction in the fall. This will then result in a finished product in December 2014, allowing for sufficient toboggan testing. In addition, selecting a potential mix design early allows for time to perform test batches and select a mix that will satisfy the required strength, behavior and characteristics for the toboggan. The primary goal for GNCTR 2015 is to create a unique and sustainable toboggan, without sacrificing performance.

EXECUTIVE TEAM

The executive committee for the 2015 University of Alberta team is:

| | | |
|---|-----------------|---|
| <i>Team Captain</i> | Alex May | 5 th Year Civil Engineering |
| <i>Assistant Captain</i> | John Rutledge | 5 th Year Petroleum Engineering Co-op |
| <i>Concrete Coordinators</i> | Dylan Friesen | 4 th Year Civil Engineering Co-op |
| | Alex Hyska | 5 th Year Civil Engineering |
| <i>Construction Coordinators</i> | Greg Nieberding | 3 rd Year Mechanical Engineering |
| | Steven Parth | 3 rd Year Mechanical Engineering Co-op |
| <i>Fundraising and Technical Report Coordinators</i> | Megan Ogle | 3 rd Year Mechanical Engineering |
| | Lillian Trieu | 5 th Year Chemical Engineering Co-op |
| <i>Technical Display Coordinator</i> | Thomas Machell | 4 th Year Mining Engineering Co-op |
| <i>Costumes Coordinator</i> | Erin Maier | 2 nd Year Civil Engineering Co-op |
| <i>Spirit Coordinator</i> | David Reid | 4 th Year Civil Engineering Co-op |

BUDGET

The budget for the 2015 team, based on 30 members, is outlined below:

| Expenses | Amount |
|------------------------------|---------------|
| Construction | \$ 4,500 |
| Technical Display | \$ 1,500 |
| Theme and Costumes | \$ 3,500 |
| Technical Report | \$ 100 |
| Registration | \$ 6,000 |
| Shipping | \$ 2,000 |
| Administrative | \$ 1,000 |
| Accommodations | \$ 5,000 |
| Travel | \$ 14,000 |
| Subtotal | \$ 37,600 |
| Revenue | |
| Membership Fees (30 x \$200) | \$ 6,000 |
| TOTAL | \$ 31,600 |

University of Alberta GNCTR is responsible for covering all costs incurred in the 2015 competition. Support from corporate sponsors is essential for us to be able to sustain a school group that functions throughout the year. We would greatly appreciate any help that your company can offer us as we build our sled for competition in Kelowna, British Columbia.

WHY BECOME A SPONSOR?

While sponsorship has obvious tangible benefits to our team, the exposure of your company to approximately 600 students, along with industry representatives and the public at competition would prove to be advantageous for you as well. Each GNCTR participant will be seeking a career upon graduation in the next one to four years. The technical exhibition day and the race day are open to the public. Thus, your company will gain exposure to competition participants as well as the general public. In the past, the Discovery Channel, CBC, The Rick Mercer Report, and CityTV have covered the GNCTR competition. In January 2014 the University of Alberta team was featured on the front page of the Metro Newspaper and on CTV Edmonton.

The 2014 competition sled is the first to be displayed on the University of Alberta campus; the toboggan is currently in the Natural Resources Engineering Facility. The company logos displayed on the toboggan have constant attention to the student body. Given the University of Alberta team has another successful GNCTR season; the new toboggan will replace the past sled on display.

Companies that choose to sponsor will gain exposure during the GNCTR season. It would be extremely beneficial to your company to join our team and partake in this event. All donations are eligible for tax receipts.



SPONSORSHIP LEVELS

We provide several options of exposure corresponding to the level of contribution to our team. In addition, the next level receives all that is outlined for the previous level:

BRONZE SPONSOR (\$50 TO \$499)

Sponsors will have their name listed as a contributor on our team website (<http://ualberta.wix.com/gnctr>), on the Technical Display and in the Technical Report.

SILVER SPONSOR (\$500 TO \$1499)

+ Sponsors will have their company name and logo displayed on our team shirts.

GOLD SPONSOR (\$1500 TO \$2499)

+ Company profile on our team website.

PLATINUM SPONSOR (\$2500 TO \$4999)

+ Company information distributed at the Technical Display during competition, as well as having your company name and logo on our toboggan.

DIAMOND SPONSOR (\$5000+)

+ Increased visibility and larger logos than a platinum sponsor. The single highest donor within the Diamond level will have their name and logo placed on our team jackets.

In addition to monetary donations, in-kind support is greatly appreciated. For example, we are seeking construction material donations toward the toboggan structure and technical display (i.e., concrete materials, wood, aluminum, paint, etc.). We are also interested in items that would assist with our team fundraising, such as tickets for sporting or artistic events, gift certificates or memorabilia to auction or raffle off during the 2014-2015 academic year. Companies donating construction supplies and/or fundraising items will receive the same benefits as earned by the sponsorship level corresponding to the estimated value of the donation.

In order to be eligible for a tax receipt (monetary donations only), donations must be made out to the University of Alberta and sent to the following address:

***U of A GNCTR
c/o Department of Civil and Environmental Engineering
3-133 Natural Resources Engineering Facility
University of Alberta
Edmonton, AB T6G 2W2***



Thank you for taking the time to read through our Sponsorship Proposal package. Visit our website at <http://ualberta.wix.com/gnctr>, or contact Megan Ogle if you have any questions and would like more information regarding how you can get involved with our team or the competition. The school year is soon upon us and the team is very much looking forward to GNCTR 2015!

Thank you,

Megan Ogle
Fundraising Coordinator
U of A GNCTR 2015
mogle@ualberta.ca