

# University of Manitoba Engineering Competition



November 21<sup>st</sup> – 22<sup>nd</sup>, 2015

## TEAM REGISTRATION FORM

Team Name: \_\_\_\_\_

### Competition Selection (please check the appropriate box):

- Junior Design (Up to 4 team members, 1<sup>st</sup> and 2<sup>nd</sup> year students only)
- Senior Design (Up to 4 team members)
- Impromptu Debate (2 members per team)
- Innovative Design (Up to 4 team members)
- Communications (2 members per team)
- Consulting (Up to 4 team members)
- Re-Engineering (Up to 2 team members)

### Team Contact Information:

- 1) Name: \_\_\_\_\_  
Email: \_\_\_\_\_
- 2) Name: \_\_\_\_\_  
Email: \_\_\_\_\_
- 3) Name: \_\_\_\_\_  
Email: \_\_\_\_\_
- 4) Name: \_\_\_\_\_  
Email: \_\_\_\_\_

Completed forms can be dropped off in an envelope in the VSE mailbox in the UMES Office (EITC E2-292) or electronically to [vse@umes.mb.ca](mailto:vse@umes.mb.ca).

**Application Deadline: Monday, November 16th, 2015 @ 5:30 pm**

UMEC serves as the qualifier for the Western Engineering Competition (WEC) held in Kelowna, BC from January 13<sup>th</sup>-16<sup>th</sup>, 2015. No individual may participate in two competitions as you may only qualify for one event at WEC.

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## **Junior Design**

Exclusive to first and second year students, this event challenges teams of four students with a physical engineering problem. Each team is given several hours and the necessary materials to create a solution to the given problem.

## **Senior Design**

Upper year students are presented with an engineering design problem on the day of competition. Teams have several hours to implement their solution with the materials provided. Teams must also prepare a short presentation on their approach to solving the design problem, followed by a demonstration of their prototype.

## **Impromptu Debate**

Competitors use analytical techniques to present, in parliamentary debate format with minimum preparation, a reasoned point of view of a resolution that has not been disclosed beforehand. The goal is to assess the competitors' abilities to convey ideas and develop arguments and not to assess competitor knowledge of formal debating rules; therefore the rules normally used in debates are relaxed.

## **Innovative Design**

The most technical competition, innovative design requires teams of one to four students to bring a solution to a problem of their choosing. The problems are typically applicable in the real world, and their solutions must be practical, useful, and original. Winners at WEC are selected based on the overall engineering process: market research, feasibility studies and design prototyping. Competitors are asked to submit a one (1)-page abstract of their design with this application.

## **Communications**

This competition challenges competitors in teams of two to describe a complicated technical process or issue in terms that the general public can understand. This is done in the form of a 20-minute, pre-prepared presentation of the topic of the team's choosing to a panel of technical and non-technical judges, who select winners based on presentation skills, topic analysis, and conveyance of information. Competitors are asked to submit a one-two (1-2) page summary of their communication topic, as well as their qualifications with this application.

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## **Consulting Engineering**

The Consulting Engineering competition challenges teams to design a detailed solution to a large-scale engineering problem. They are presented with a problem that morning, and have up to 8 hours to solve it and submit a report and the presentation they will deliver the next day. The proposal must be made in a way that promotes the solution to potential customers in the form of judges. Competitors are asked to submit a one (1)-page report discussing your teams' strength in this competition with this application.

## **Re-Engineering**

The Re-Engineering competition challenges competitors to find innovative ways to redesign or repurpose an existing product or process in order to improve its functionality or adapt it for a completely new purpose. Competitors are provided specifications on a piece of infrastructure, technology, or design and are given one day to propose a way to use it in order to solve a completely new problem.