

CENTRAL OHIO



MINIATURE BRIDGE BUILDING COMPETITION

November 13, 2019

Dear Educator,

We would like to invite you and your students to participate in the first, hopefully to be annual, Central Ohio Miniature Bridge Building Competition (COhMBBC). The purpose of the event is to provide the opportunity for your students and the local civil engineering community to interact and to help your students:

- Learn how to apply principles of physics and math to bridge design and construction;
- Undergo the process of preliminary design, detailed design and construction of a miniature bridge to understand the hard work and challenges of the civil engineering world;
- Experience firsthand the procedure of testing an engineered element to better understand its capabilities;
- Learn about the many facets of a fascinating and challenging career in civil engineering.

The event is being sponsored by the Central Ohio Association of Bridge Construction and Design (ABCD), The Franklin County Engineer, The Ohio State University (OSU), the OSU ASCE Student Chapter, the OSU AISC Student Chapter and the Ohio Department of Transportation (ODOT) District 6.

The objective of this event is to design and build a structure with the highest load-to-weight capacity ratio (Failure Load/Weight), over a predetermined span using supplied materials. The bridge must have an unobstructed flat roadbed capable of allowing a wheeled car to pass over its entire length. Each team may consist of 2-3 students, either in their junior or senior year of high school and one chaperone, and may enter only one bridge that must be built at the competition within a 3-hour time limit. Each school may enter up to two teams. This is an engineering event; therefore, failure to adhere to the rules and regulations herein will incur penalties against the final score. In this inaugural year, we are limiting the number of teams to the first 50 that register. The deadline to register is January 31, 2020. Practice materials will be sent out starting January 1, 2020 or once your registration is received if after that date. Please go through the register link at this website to complete your registration:

<https://www.abcdco.org/outreach.html>

The event will take place on **Saturday, April 11, 2020**, on the OSU campus at the Ohio Union Great Hall. Registration for the event will begin at 8 am and the 3-hour build time will begin promptly at 9 am and end at noon. Testing of the bridges will take place after lunch. Breakfast and lunch will be provided. Transportation to and from the event will need to be provided by the school. Additional information

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about the venue and parking will be provided on the website closer to the event date. There is no cost to participate aside from transportation costs to and from the event venue and the cost of any tools the team may need that the school does not currently have access to. If your school cannot afford the cost of the tools, please reach out to the event coordinator to ask for assistance in obtaining the necessary tools.

If you have any questions about the event or are interested in having a representative from the civil engineering community visit your school in preparation for the event or just to introduce your students to civil engineering please reach out to the ABCD Outreach Director (Event Coordinator), Julia Hart, at Cohmbbc@gmail.com.

Please refer to the event website (<https://www.abcdcoh.org/outreach.html>) for additional information and updates. The bridge specifications will be available on the event website soon.

Sincerely,

The COhMBBC Committee

Julia A. Hart, PE, Event Coordinator
ABCD Outreach Director

2LMN Structures Dept. Head

Abbey Zimmer
Transportation Engineer 2
ODOT District 6 Construction



Edwin H. Herrick, P.E.
Bridge Design Engineer

Chris Hay, PE
ABCD Website Director

TRC Bridge Engineer

Jieun (Jee-Eun) Hur, Ph.D., P.E.
Assistant Professor of Practice
Civil, Environmental, and Geodetic Engineering



Simone Y. Burley
Diversity & Inclusion Coordinator