2025 ASCE Student Symposium

Thursday, April 10, 2025 – Saturday, April 12, 2025

Geotechnical Competition

Objective of the Competition:

Get ready for Clemson University's Sand Structure Load Bearing Competition here at Snow Complex! Channel your school mascot/spirit and engineering powers to build a "sand structure" designed to withstand the greatest weight. This engaging challenge tests your compacting skills and the structural boundaries of sand and water. Teams of 4-6 students are welcome to participate!

Construction Time:

Each team will have 45 minutes to construct their sand structure, with announcements to mark time at 15-minute intervals and a final reminder 5 minutes before the end.

Design Rules:

Each team will be provided with a standard 5-gallon bucket for their procurement of materials. The minimum required dimensions of the "sand castle" is 10 inches x 10 inches and must not exceed 20 inches x 20 inches. Each structure must be at least 15 inches tall. Teams failing to comply with the dimensions will be disqualified.

Materials Provided:

Teams will be supplied with a shovel, bucket, tape measure, dowels, paper, and a compaction tool/hammer to procure their material and begin construction. No additional tools or materials are permitted.

Testing Rules:

Once the construction time concludes, each team's "sand structure" will undergo a weight test where weights are added to the top one at a time. The competition will assess the amount of weight each structure can support before it shows any signs of structural failure, such as collapse or significant deformation.

Scoring:

- Weight Bearing: The team which can support the most amount of weight will be declared the winner.

- If a tie breaker, of two structures bearing the same weight is necessary the "sand structure" with the smallest square footage wins.

** Please submit any questions regarding these rules to: ascesymposium@clemson.edu**

Contestant(s): _____

School: _____

Geotech Scoring Sheet	Score
Weight before failure (lbs)	
Square footage (ft^2)	