

GEOTECH

Time to get your hands dirty! Chapters will select 2-6 competitors to test their geotechnical engineering knowledge and critical thinking skills. This hands-on challenge will use your basic understanding of soil mechanics and hydraulics to come up with a solution

Rules for Competition:

The objective of this competition is to create the longest-lasting dam using the least amount of materials provided.

Construction Time:

Teams will be given 40 minutes to design and construct their dams, warnings will be given periodically as the stop time approaches. Teams exceeding the 40 minute construction time will be disqualified.

Design Rules:

Each team will be provided a plastic tub in which to construct their dam in, the dimensions of which will be released during the captains meeting. The dam must not exceed the height of the container, and cannot exceed 4 inches in width. The dam must be built no further than 6 inches away from the side of the tub which will be filled. Failure to follow design parameters will result in point deductions.

Materials:

Each team will be provided the same reinforcing materials, which will be released at the captains meeting. Any remaining materials leftover will be tallied towards improving the final score.

Testing Rules:

Once the allotted construction time has ceased, each team will weigh their respective dams, and then line up to begin pouring their one gallon of water. The nozzle of the jug will be placed on the lip of the tub at a 90-degree angle until half of the water has been emptied, then tilting as needed until one full gallon is behind the dam. Once the gallon has been fully poured, start a timer. Once the dam has been entirely washed away, stop the timer.