

University of South Alabama  
Civil Engineering Department

# **Rules and Regulations For Concrete Bocce Ball**



Presented by the Student Chapter of the American Society of Civil  
Engineers at the University of South Alabama  
for the USA-ASCE High School Competition

Rules Updated October 2025

## Concrete Bocce Ball

### Requirements

Each team will bring 4 cylinders to the competition; 3 of the cylinders will be decorated for aesthetics judging and tournament play, while the 4<sup>th</sup> will be left undecorated for compressive testing. Each team should also bring a copy of their canoe mix design for the bocce ball competition. (see concrete canoe rules for specifications)

### Specifications

- Each concrete cylinder will have a 4” diameter and an 8” height
- Cylinders should be made using the same mix design as the concrete canoe
- No reinforcement shall be used in the cylinders (e.g. bars, meshes, or grids)

### Aesthetics

- Each team will bring 3 decorated cylinders that are decorated to their theme of choice
- The 3 decorated cylinders will be presented to the judges for scoring

### Scoring

#### *Technical score (10%)*

- Teams should bring and submit the complete mix design chart (see Concrete Canoe rules)
- Teams that follow all specifications will receive the maximum score while each violation will result in a penalty of one third the maximum number of points\*
- The technical score is non-competitive and multiple teams may receive the same technical score

#### *Testing Score (30%)*

- Teams will submit an undecorated cylinder for compressive strength testing
- Each team will also submit a prediction on the compressive strength of their cylinder in psi
- The team with the nearest prediction will receive the maximum number of points\* while the farthest will receive 1 point
- Teams with rule violations will be ranked lower than teams that are following specifications

#### *Aesthetic score (20%)*

- Judges will score each cylinder based off of a rubric
- Each team will be scored by multiple judges with the average score being recorded

#### *Tournament score (40%)*

- Teams will compete in a single elimination bocce ball tournament using the 3 decorated cylinders as balls
- Teams will be randomly seeded
- The team that wins the final will receive the maximum number of points\* while the team in last will receive 1 point

\*Maximum number of points is equivalent to the number of teams participating

#### Tournament Play

Play will follow normal Bocce ball rules with some “house rules” that overrule classic play.

- The game will be doubles with only one player bowling per frame
- 3 decorated concrete cylinders will be used for playing instead of balls
- The court will be 50’ long by 10’ wide
- A foul line will be placed 5’ from the end of the court
- The court will not include side and back boards
- Any cylinder tossed outside of the court will be considered out of bounds and not count for the scoring of that frame
- The first team to reach 12 points at the end of a frame wins, however a team that scores over 12 points will “bust” and be reset to 9 points
- If a cylinder breaks during play, then that cylinder will no longer be used and will not be scored for that frame
- A cylinder will be considered broken whenever it has no section measuring a 4” diameter and an 8” height

To learn how to play bocce ball check out <https://www.youtube.com/watch?v=v3slD-qDIW8>

## Rubric

School Name: \_\_\_\_\_

Group Name/Number: \_\_\_\_\_

Technical Score (10%): \_\_\_\_\_

Testing Score (30%): \_\_\_\_\_

Aesthetic Score (20%): \_\_\_\_\_

Tournament Score (40%): \_\_\_\_\_

Total Score: \_\_\_\_\_