



2025 ASCE Gulf Coast Student Symposium at Mississippi State University Concrete Cornhole Competition March 6-8, 2025

Overview:

Each school will design and fabricate one cornhole board to be used in a double elimination bracket tournament. Judging will be based on aesthetics, functionality, fulfillment of design criteria, and placement in the tournament. Cornhole bags will be provided by the host school. There is no limit to the maximum number of team members allowed to construct the board. However, only up to 4 students on each team can participate in the tournament. In addition, only 2 students from each team can participate in the same game (1 member teams are disqualified).

Board Design:

The following are the criteria for board design:

- 48 inches in length
- 24 inches in width
- 2-4 inches in thickness
- 6-inch diameter hole with the center located 9 inches from the top and 12 inches from each side
- 12 inches in height (highest point on the slant to the floor)
- All dimensions have a tolerance of ± 0.25 inches
- Any reinforcement is allowed
- Legs for the board can either be made using a wood frame to support the legs or can be poured as part of the mold
- Aesthetic design should include school spirit (e.g., school logo) or Starkvegas theme.

Mix Design:

Any cementitious material is allowed such as Portland or hydraulic cement (ASTM C150/C595/C1157), fly ash (ASTM C618), slag cement (ASTM C989), and/or silica fume (ASTM C1240). The water-to-cementitious ratio by weight must be 0.35 or greater. Aggregates must be retained on a #200 sieve and mass must pass a $\frac{1}{2}$ " sieve. Teams are allowed to use fiber reinforcement (ASTM C1116) or reinforcement grid. Any admixture is allowed.

Rules for this competition were adapted and modified using rules from the 2023 ASCE Gulf Coast Student Symposium Concrete Cornhole Competition which was hosted by the University of South Alabama and the 2024 ASCE IN-KY Student Symposium which was hosted by Purdue University Northwest.

Mix Design Spreadsheet:

A mix design spreadsheet must be completed and submitted as part of the competition. An example spreadsheet is shown below:

School Name				
Faculty Advisor Name				
Team Captain Name				
Component	Type	Amount Used (lb)	Volume Used (ft³)	Density (lb/ft³)
Cement				
Cementitious Materials				
Aggregate				
Chemical Admixtures				
Reinforcement				
Water				
Totals				
Measured Weight By Scale (lb)				

Tournament:

Teams will be randomly selected in a double elimination bracket. A line will be marked 27 ft from the cornhole board front edges where the players will throw behind from. Players alternate turns tossing their cornhole bags toward the opposite board until all 4 bags from each team have been tossed. After each round the score is determined. The team that scored points the previous round will go first during the next round.

Cancellation scoring will apply (the points of one player cancel out the points of their opponent). Only one player on each team can score in each round. Bags that land on the board and stay on the board are 1 point. Bags that fall through the hole are 3 points. Bags that bounce off the ground and onto the board will receive no points. At the end of the round the scores are cancelled. Example: Player 1 from Team A gets 5 points on their turn and Player 1 from Team B gets 2 points on their turn. The total round score will be 3 points for Team A. The team having 21 or more points at the end of a round is declared the winner of the game.

Submission:

A mix design spreadsheet will be submitted by 11:59 PM CDT on February 14th, 2025 to tlynn@cee.msstate.edu. Email must have the following subject: 'Concrete Cornhole Mix Design: School Name.' For example: Concrete Cornhole Mix Design: Mississippi State University.

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Tournament Points:

The following will be used for final overall scoring:

Tournament Placement Scoring

1 st Place	15 points
2 nd Place	10 points
3 rd Place	7 points
4 th Place	5 points
5-6 th Place	3 points
Participant	1 point

Concrete Pour Scoring

Concrete is smooth with no lumps/cracks	8-10 points
Concrete is moderately uniform	4-7 points
Concrete is lumpy and/or cracked	1-3 points

Aesthetic Design Scoring

High Quality Design	5 points
Moderate Design	3-4 points
Little to No Design	1-2 points

Weight Scoring

Lightest Board	5 points
Second Lightest Board	3 points

Final Comprehensive Scoring

Tournament Scoring	/15
Concrete Pour	/10
Aesthetic Design	/5
Board Dimensions (meets requirements)	/5
Weight Scoring	/5
Board Mix Design (meets requirements)	/5
Performance (remains intact during tournament)	/5
Subtotal	/50

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