Concrete Cornhole Competition Rules

Objective:

The objective of the concrete cornhole project is to apply concrete mix design knowledge learned in class to build a cornhole board. The constructed board will be used in the competition.

Each school will design a single cornhole board made from concrete.

Judging will be based on three main categories:

1. Adherence to design criteria
2. A report describing design decisions and challenges
3. Performance in the tournament. An unlimited number of students may design and complete the board, but a maximum of 4 members may participate in the competition. Teams with 1 person will be eliminated.

Design Criteria

Each Cornhole board shall meet the following design criteria. The dimensions are further outlined in Figure 1.

<u>Board Dimensions:</u>

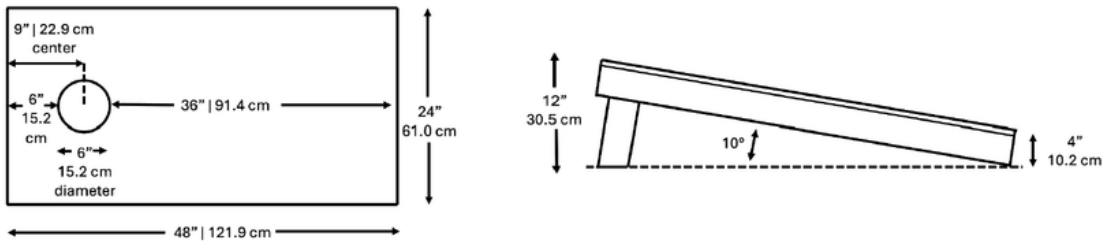
1. The board shall be 4 feet in length by 2 feet in width.
2. The hole will be 6 inches in diameter, with the center 9 inches from the top and 12 inches from either side.
3. The front edge of the cornhole board shall be 4 inches from the ground, and the back edge shall be 12 inches from the ground at the highest point of the board.
4. The maximum thickness of the board shall not exceed 4 inches.
5. The allowable tolerance for all dimensions is ± 0.25 inches.
6. 5 points will be awarded to the team with the lightest board and 3 points to the team with the second lightest board. (The board must be eligible for tournament play) All other teams will receive a score of zero in the weight of the board category.
7. A scale will be provided for weighing the board.
8. Each team **must bring** a set of 8 standardized cornhole bags to be eligible to play. (1 pound per bag, 6x6 inches) (2 colors-4 bags of each color)

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Support Structure:

- Teams have the choice to make the legs for the board out of wood or pour them as part of the board mold.
- Dimensions are shown in the figure below and mentioned above.



Board Aesthetics:

- Teams have free rein over the design of the board, but it must remain appropriate. Points may be deducted for inappropriate designs/themes.
- The top of the board shall be flat and smooth
- Each board must represent the university
- The board may be finished with a variety of stains, sealants, and textures, but must not be painted.
- Graphics can be inlaid within the concrete.
- Concrete pigments within the mix are allowed

Mix Design Criteria

Each team shall complete a mix design spreadsheet to be submitted to the judges by 03/05/2027 by ascesymposium2027@gmail.com The subject line must include "University Name-Concrete Cornhole Competition Mix Design" and the spreadsheet must include the following:

- Any cementitious material is allowed.
- Aggregates must pass through a ½ inch sieve and be retained on a #200 sieve.
- Any admixture is allowed
- Teams are allowed to use fiber reinforcement or reinforcement grid.
- Bar reinforcements shall be limited to 12 linear feet of #3 rebar.

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Tournament Play

Tournament Teams

Tournament play will consist of round-robin-style and bracket-style tournaments (differing from previous years of purely bracket-style play).

Teams may be disqualified due to failure in their board, failure to conform to the above dimensions, and failure to follow the mix design rules. If a board breaks during a round, the team forfeits the game, and they may not receive points for the tournament play portion of the rubric.

Each team will choose 2 players to compete in a game. Teams may decide to switch out players only after the completion of a game.

Gameplay

- The boards shall be placed 27 feet apart, with the front edge of the board as marked on the ground.
- One player from each team will stand at each of the two boards. Each team will use their own four bags of one color.
- All bags begin on one board
- Players alternate pitching cornhole bags toward the opposite board from behind the front of their board. Players pitch their bags in an underhand motion.
- After each team has pitched four bags, players take score and resume pitching towards the opposite board.
- The team scoring points in the previous round goes first in the next. If it were tied, the team that went first in the last round would get to go first again.

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Scoring:

- A cornhole bag that goes through the hole is worth 3 points.
- A cornhole bag that lands on the board and stays there is worth 1 point.
- A cornhole bag that lands on the ground or bounces onto the board is worth 0 points and shall be removed before the next toss.
- Points Calculation for one round: The team with the higher score in a round earns the difference in points. For instance, if Team A scores 5 points and Team B scores 2 points in a round, Team A earns 3 points for that round.
- During round-robin play, each game will be played to 11 points. If the score is tied at the end of a round, the game continues until one team scores. There will be no "drop back" scoring during round-robin play (i.e., if your score exceeds 11, you will NOT drop back down to a set point value).
- The semi-final and final rounds in the winners' bracket will be played to 15 points. During these rounds, "drop back" scoring will be used; if a team exceeds 15 points during a round of play, their score will drop back to 10 points. In other words, in order to win, a team must score exactly 15 points, but not more.

Report Submission

Each team shall complete a mix design spreadsheet to be submitted to ascesymposium2027@gmail.com by **03/05/2027.** The subject line must include "University Name-Concrete Cornhole Competition Mix Design." In addition to the mix design spreadsheet, teams must be able to present a completed board at the time of the competition to be judged and used.

Concrete Cornhole Competition Rules

School Name				
Faculty Advisor Name				
Team Captain Name				
Component	**Type**	**Amount Used (lb)**	**Volume Used (ft^3)**	**Density (lb/ft^3)**
Cement				
Cementitious Materials				
Aggregate **(SSD)**				
Chemical Admixtures				
Reinforcement				
Water				
Totals				
Measured Weight By Scale (lb)				

Above is an example document for the mix design document.

Scoring (50 pts.)

Score Breakdown

Categroy	**Score**
Aesthetics	/10
Board Dimensions	/10
Mix Design	/10
Tournament Placement	/15
Weight of the Board	/5
Total	**/50**

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Point Breakdown

1. Aesthetics (10/50)

Aesthetics will be judged on creativity, originality, and quality of design. A maximum of 10 points can be awarded. Teams will receive 0 points for inappropriate designs or use of prohibited materials. Points will be docked for not displaying the name of the school being represented, poor designs, lack of creativity, and lack of originality.

2. Board Dimensions (10/50)

Teams whose boards meet all the specified board dimension criteria will receive full points for this category. Any team found in violation will automatically receive a 10-point deduction and disqualification from tournament play.

3. Mix Design (10/50)

Failure to meet any of the mix design criteria will result in a 10-point deduction from the total score.

4. Tournament Placement (15/50)

First place will earn 15 points, second place will earn 10 points, and third place will earn 5 points. All other participating teams will earn 2 points. All teams that have been disqualified will receive a zero in the tournament category. In the event of a board failure (complete, catastrophic failure) during a game, the team automatically forfeits the game. If the game was being played for 1st place, the team whose board broke would receive 2nd place. If the team was playing for 3rd place and their board broke, they would receive 4th and ultimately no points would be awarded to them. We expect minor cracking and breaking, but it is up to the judge's discretion to determine if a board is playable or not.

5. Weight of Board (5/50)

To add an extra challenge, each team will be judged on the weight of their cornhole board. The team with the lightest board will receive 5 points, 2nd lightest board will receive 3 points, 3rd lightest board will receive 1 point, all other teams will receive 0 points.



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Competition Overview:

- Create one Board per team
- 4 team members max on the playing team; 2 playing at a time

Supplies Needed:

- Complete cornhole board
- 8 standardized cornhole bags (2 sets of 4 with different colors)
- A mix design spreadsheet submitted by **03/05/2027**

Questions:

For any additional questions email ascesymposium2027@gmail.com