

**Concrete Frisbee** 

# Concrete Frisbee

Pacific Southwest Conference 2018

# 1.0 Event Description

Participants will create a flying disc, or Frisbee, made of concrete prior to arriving at conference. Each Frisbee will be tested in a designated area on the day of the event.

# 2.0 Objective

To design and create a flying disk, or Frisbee, out of concrete that is aesthetically pleasing, functional, durable, and efficient for use in a distance throwing competition.

# 3.0 Participant Rules

- Each University may enter only one team.
- Teams must consist of 2 members at minimum.
- Teams must not exceed more than 5 members.
- Everyone on the team must be a registered participant of PSWC 2018.
- The team must have at least one underclassman.
- The team must have at least one male and female.

## 4.0 Design Requirements

The following design requirements must be followed:

- Portland cement cannot be more than 30% by mass. All reinforcement must be non-metallic mesh. (Carbon fiber and fiberglass mesh can be used.) There is no restriction on choice of aggregates. No resins or epoxies may be used.
- Molds of any form can be used.
- Each team is allowed to bring two concrete Frisbees to the competition; however, the team must select one Frisbee to use prior to the beginning of the competition.
- The Frisbee should be circular in shape, solid, and without any holes. It must be smaller than a 12"x12"x2" box and larger than an 8"x8" box.
- No reinforcement can be exposed at the time of the aesthetics judging and precompetition measurements.
- A mix table must be submitted on or before March 9, 2018 to pswc2018@gmail.com.
- The Frisbee must be made before the conference. The team is responsible of bringing the Frisbee to the competition location on the day of the competition.
- Two events will be held to determine the maximum distance and accuracy of the Frisbee. Details of each event are outlined in the "Scoring" section below.

## 5.0 Scoring

The following categories will be used to score each team's Frisbee:

#### 5.1 Distance:

- Boundaries will be marked and explained prior to the start of the competition.
   Each team will have three opportunities to throw their Frisbee, by the same person or by different people. The farthest distance of three throws will be counted. If the Frisbee lands outside of the boundaries or if the thrower's hand crosses the baseline, the throw will be disqualified.
- Percentage of Total Score: 25%

## 5.2 Accuracy:

- A fixed target will be placed 50 feet away from the baseline. Each team has three chances of throwing the Frisbee, by the same person or by different people. The closest distance to the target of three throws will be counted. Measurements will be taken after the Frisbee comes to rest from the target to the closest edge of the Frisbee.
- Percentage of Total Score: 25%

## 5.3 Durability:

- The Frisbee will be weighted after both events have been completed; the residual weight will be used to calculate the durability. If the Frisbee loses less than 5% of its initial weight, the team shall receive the full score for this category.
- Percentage of Total Score: 20%

#### 5.4 Weight:

- The Frisbee will be weight prior to the start of the events and will be compared to the lightest Frisbee.
- Percentage of Total Score: 20%

#### 5.5 Aesthetics:

- Aesthetics will be based on uniformity, surface texture, finish, and overall paint
  job prior to the start of the competition. The scoring for this category will be at the
  judges' discretion.
- Percentage of Total Score: 10%