

ASCE Intermountain Southwest Student Symposium



April 16-18, 2026

Concrete Bowling
ISWS 2026 Local Competition



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Concrete Bowling
April 16th - 18th, 2026

Objective

Student teams shall design and fabricate a bowling ball made primarily of concrete that is capable of withstanding and completing a five-frame bowling competition. The bowling balls should demonstrate creativity, durability, and performance efficiency.

Participant Rules

- Each team must consist of 2 to 5 members.
- All team members must be registered ISWS 2026 participants.

Event Description

- Only one concrete bowling ball is permitted per team.
- A game consists of 5 frames, with 10 pins set for each frame.
- Each bowler is allowed two attempts per frame to knock down all pins.
- If a team member begins a frame, that same member must finish the frame.
- Each team member must bowl at least one frame during the competition.

General Rules

- Only one competition team per student chapter.
- Standard bowling rules apply unless otherwise noted.
- Standard bowling pins will be used.
- No ramps or bumpers are allowed.
- If the bowling ball becomes damaged during play, it may continue to be used only if it still meets all design requirements and can roll the full length of the lane.
- If the ball can no longer roll the length of the lane or no longer adheres to the rules, the team will receive the score accumulated up to the moment of failure.



Design Requirements

- The bowling ball must be made of concrete only; no resins or epoxies are permitted.
- The ball must be as spherical as reasonably possible to allow proper rolling.
- Ball diameter must be between 8.0 and 9.5 inches.
- Ball weight must be less than 16 pounds.
- A concrete mix design table must be submitted by 11:59 MST on March 26th, 2026. Email mix design table to isws2026.uofu@gmail.com with the subject line: Concrete Bowling Mix - [School Name].
- Failure to meet any design requirements or submit the mix design on time may result in point deductions or disqualification.

Fouls

- If a bowler steps on or releases the ball past the foul line, all pins knocked down during that roll will score zero points.

Scoring

Teams will be judged on the following criteria.

Design Requirements (30 Points)

- Full points awarded for meeting all stated design requirements.
- Late mix design submission will result in a 10-point deduction in this category.

Durability (20 Points)

- The bowling ball will be weighed before and after the competition.
- If the ball loses less than 5% of its original weight, full points will be awarded.

Aesthetics (20 Points)

- Aesthetics will be judged during the event alongside a brief informal presentation (maximum 5 minutes).



- The presentation should describe the mix design, construction process, and aesthetic choices.
- Each team must choose a clear and distinguishable theme.
- Pigments, dyes, paint, and layered concrete finishes are allowed.
- Incomplete aesthetic presentation at judging time will result in forfeiture of all aesthetic points.

Bowling Competition (30 Points)

- Each team bowls 5 frames total.
- Scoring per frame is based on pins knocked down:
 - 0 pins: 0 points
 - 1–3 pins: 1 point
 - 4–6 pins: 2 points
 - 7–9 pins: 4 points
 - 10 pins: 6 points
- Fouled rolls receive 0 points.

Scoring Summary Table

Category	Maximum Points
Design Requirements	/30
Durability	/20
Aesthetics	/20
Bowling Competition	/30
Total	/100

Final Notes

- Event officials reserve the right to clarify or modify rules for safety or logistical reasons.
- All decisions by judges and event officials are final.

