



***DEPT. of Nutrition and Food Science***

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## **EGG DECELERATION CONTEST RULES - 2006**

### **GENERAL:**

The contestants shall design and build a shipping container that will prevent an uncooked chicken egg (Grade-AA Large) from breaking when dropped from a height of 10 meters. The container should be less than 2,700 cm<sup>3</sup> in volume, with no dimension longer than 30 cm. The maximum weight, including the egg, should not exceed 1 Kg. Judges must be able to place the egg in the container or remove it without damage in a maximum time of 30 seconds. Failure to meet these criteria may result in disqualification.

### **MATERIAL:**

Any material may be used in the design, as long as the structure meets the design and contest rules as outlined below.

### **DESIGN AND CONTEST RULES:**

1. The EVENT will take place **Thursday OCTOBER 12<sup>th</sup> at 12:00 pm in the Amphitheater on the east side of the Union.**
2. Teams of one or two people may enter one package of their own design and fabrication.
3. There is no entry fee for students.
4. No kits or pre-made designs may be used. The structure must be the individual's or team's invention.
5. The structure must be completely released. (no strings or other attachments)
6. The structure must land in a designated target area. (a 1.2M x 2.4M plywood sheet)
7. No propulsion systems will be allowed.
8. No gases (e.g. helium) other than air can be present in the structure when it is weighed.
9. No high viscosity fluids are allowed. (peanut butter, jelly, etc.)
10. No sharp objects or hazardous materials are permitted.
11. No liquids or anything that will splatter. (other than the egg!)
12. Volume will be calculated based on the rectangular cube (length x width x depth) of the container's exterior surface.
13. The package entries will not be returned, upon entry they become the property of the SJSU Packaging Department. For sanitary reasons, event organizers will dispose of all packages and eggs after the contest.

### **JUDGING:**

1. Grade-AA Large eggs will be supplied at the contest. Contestants cannot bring their own eggs.
2. A panel of three Judges will inspect all containers before they are dropped. A minimum two-thirds vote from the panel shall constitute a panel's decision.
3. Once an egg is weighed in with the structure/package, that egg cannot be exchanged with another.
4. The egg must be placed into the container on-site. Judges must be able to place the egg in the container or remove it without damage in a maximum time of 30 seconds. Exceeding these time limits may lead to disqualification.
5. If the egg is damaged during placement/removal within the container, the team may be disqualified.
6. The egg must be undamaged after the drop in order for the score value to be recorded. The egg is considered damaged if any cracks (fissures, splits, breaks) appear on the surface of the egg, particularly with multiple points of intersection, or internal fluids are escaping from the shell. The score will be based on the equation:

$$\text{Score} = (10,000,000) / [(\text{total mass (grams)}) \times (\text{volume (cm}^3\text{)}) \times (\text{time of fall (sec}^5\text{)})]$$

7. The packaged eggs will be dropped from a height of 10 meters.

