

1. Title of the activity:

Hartnell College Physics Olympics

2. Name and Location of the SPS Chapter

Hartnell College Society of Physics students, Salinas, CA.

3. Name, email, signatures of student preparers

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4. Name, email, signatures of faculty advisors

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5. Total amount requested

\$300

6. Date of submission

11/30/12

7. Federal Tax ID #

94-2781664

The Hartnell College physics club annually hosts the Hartnell Physics Olympics, which has been a popular event for over thirty years, on a Thursday in April. This year we plan to expand our event by including an additional Physics Olympics, on the following weekend, for SPS chapters and colleges in Zone 18.



Physics club officers (blue shirts) clockwise from left:
Kevin Hilario, George Omictin, Leo Osornio, Riley Shoefield, Roxana Ramos, Tito Polo (advisor), Jessica Jimenez, Preet Mohar, Brooke Haag (advisor)

The Hartnell College physics club is proposing to expand our annual Physics Olympics to include outreach to local colleges and SPS chapters.

The physics club members organize and execute the Olympics, which will include the following five events:

(<http://www.hartnell.edu/physics/physicsolympics/rules/rules.htm>)

- Balsa Wood Bridge Building
- Egg Drop Competition
- Marshmallow Tower
- Straw Arm
- Building Blocks

Normally, local high school students and Hartnell students compete for prizes. Aside from the benefit of prizes, the event serves as an introduction to the sciences at Hartnell for many local high school students. A number of them enroll in future physics classes as Hartnell students. This year we would like to extend this event to include our fellow SPS members as well as other colleges in the area. We hope to build a rapport with these groups similar to what we have with the high schools in our area.

We would like to incorporate them by holding a separate Physics Olympics, including demonstrations and an ice cream social, for our fellow college students. We will need to include funds in the budget for the purchase of rockets, the creation of a “non-Newtonian fluid” pool and a barrel-crushing demonstration.

Any additional funding required for the aforementioned supplemental activities will come from the physics club budget.

Item	Cost
Non-Newtonian Fluid	\$90 (3 bags of corn starch @ \$30 per 50lb. bag)
Pool	\$60
Liquid Nitrogen	\$100 (4 liters @ \$25 per liter)
Model Rockets	\$50 (2 rockets @ \$25/rocket)
Ice Cream Social	\$40 (paid via physics club budget)
Lunch	\$100 (10 pizzas) (paid via physics club budget)
Total	\$440

In order to prepare for this larger event, we have already begun planning and preparing instead of waiting until our usual January date. Our club officers do this by meeting once a week to discuss this and other ongoing projects. This includes contacting other SPS chapters in our zone, assigning officers to head/judge each of the events, purchasing supplies, reserving facilities, reviewing the safety guidelines and by supervising each event on the day of the competition. Tito Polo will oversee the details of the proposed outdoor events, ensuring that all student volunteers observe necessary safety precautions. By working together we will be able to plan and execute a successful and safe event.

As the Marsh W. White award is given "to support projects designed to promote interest in physics among students and the general public", this project proposal is a very good fit. Over one hundred students compete annually in Hartnell's Physics Olympics, and by adding the participation of our local colleges and SPS chapters we expect those numbers to rise. In addition we hope to do our part in furthering the scientific interest for other local students as well as the general public who would be attracted by the competitive atmosphere and a more convenient date.