



SOCIETY OF PHYSICS STUDENTS

An organization of the American Institute of Physics

Marsh White Award Report Template

Project Proposal Title	Physics for the Public.
Name of School	University of Southern Mississippi
SPS Chapter Number	6626
Project Lead (name then email address)	Swapnil Bhatta (Bhatta.swapnil@usm.edu)
Additional Project Leads (two lists: names then emails)	Jeremy Kirksey (Jeremy.kirksey@usm.edu), Sophia Turner (Sophia.turner@usm.edu)
SPS Chapter Advisor	Michael Vera
Total Amount Received from SPS	\$250
Total Amount Expended from SPS	\$500

Summary of Award Activities

The SPS chapter at the University of Southern Mississippi participated in Hubfest, an annual arts and music event organized by the city of Hattiesburg. We set up a booth at the fest, and conducted various physics demonstrations for the audience attending the fest. These demonstrations focused on topics in physics related to optics and thermodynamics.

Statement of Activity

Overview of Award Activity

- Brief description – Our chapter set up a booth at the fest and performed educational outreach to the attendees of the festival. The outreach consisted of various demonstrations relevant to optics and thermodynamics. We had a total of six volunteers from our chapter who helped us carry out the outreach. We started with a demo of instantaneously cooled marshmallows through liquid nitrogen and followed it up with other demonstrations regarding lasers, diffraction gratings, propagation of waves, thermodynamics and pressure.
- Outcomes – We were able to successfully achieve our goal of promoting physics to the general public and spreading the word about the Society of Physics Students.
- Audience – Our target audience was mostly young children and adults. We were able to interact with an estimated 2,000 people.
- Context of the Project – Our chapter has participated in Hubfest for almost 10 years and we have felt it to be a very rewarding experience overall in terms of showing people how fun physics can be and explaining the actual science behind it, something we love to share.
- Highlights and stories – The visitors really liked our chapter T-shirt for this year, we will be doing a summer school outreach with the city of Hattiesburg's Parks and Recs department because a visitor who worked for them really liked our demonstrations.

Impact Assessment: How the Project/Activity/Event Promoted Interest in Physics

Through this outreach, we hoped to stimulate the public's curiosity and interest in physics along with sharing our knowledge in topics relevant to our demos. We were able to do that through our demonstrations and explanations of the underlying physics behind it. We were able to tell people more about the Society of Physics Students through the t-shirts we were wearing and sharing what our organization stood for.

We kept a tab on the number of people we interacted with along with the number of pamphlets we gave out and the bags of marshmallows we went through. The weather was not pleasant and there were bursts of rain through the event which hindered the number of people we interacted with. We estimate to have interacted with roughly 800 people while the people observing our demos were over 2,000.

Key Metrics and Reflection

Please answer the questions below. Please indicate if a question is not applicable to your project.

Who was the target audience of your project?	General public.
How many attendees/participants were directly impacted by your project? Please describe them (for example “50 third grade students” or “25 families”).	Around 800 festival attendees directly, more than 2,000 indirectly.
How many students from your SPS chapter were involved in the activity, and in what capacity?	Six members, all of them helping perform demonstrations and explain the physics behind it.
Was the amount of money you received from SPS sufficient to carry out the activities outlined in your proposal? Could you have used additional funding? If yes, how much would you have liked and how would the additional funding have augmented your activity?	The increase in registrtaion prices did hamper our early budget estimations. More funds would have allowed for more materials for demonstrations.
Do you anticipate repeating this project/activity/event in the future, or having a follow-up project/activity/event? If yes, please describe.	Yes, the fest is annual.
What new relationships did you build through this project?	Some professional relationships with some of the visitors that were interested in our outreach and also interested in us ogranizing something similar.
If you were to do your project again, what would you do differently?	Plan the shifts better.

Press Coverage (if applicable)

Not applicable.

Expenditures

Expenditure Table

Item	Cost
Balloons	18.00
Hubfest registrations 2019	250.00
T-shirts for volunteers	90.00
Liquid Nitrogen	(75.00 the department paid for it)
Marshmallows	12.00
Flowers	10.00
Racquetballs	24.00
Trash bags	3.00
Energy bars and water	13.00
Portable Laser	80.00
Total of Expenses	500.00

Activity Photos

Please include captions and credits for each photo. By including photos below, you are giving SPS and the American Institute of Physics permission to use these photos in their online and printed publications.

<https://www.facebook.com/spsatusm/posts/810403469334815>

(Will attach)



If you have any questions, please contact the SPS National Office Staff
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