



SOCIETY OF PHYSICS STUDENTS

An organization of the American Institute of Physics

Marsh White Award Report

| | |
|--|---|
| Project Proposal Title | "A Night of Astronomy" at Sugarloaf Ridge |
| Name of School | Sonoma State University |
| SPS Chapter Number | 6474 |
| Project Lead (name then email address) | Amandeep Gill gillama@seawolf.sonoma.edu Wes Watson wesmwatson@gmail.com |
| Additional Project Leads (two lists: names then emails) | Demitri Call ¹ , Aaron Owen ² , Stephanie Church ³ , Rosita Ordonez ⁴ , Michael Dobbs ⁵ (1) callde@seawolf.sonoma.edu (2) aowen@newoa.net (3) churchs@seawolf.sonoma.edu (4) ordonez@seawolf.sonoma.edu (5) dobbsm@seawolf.sonoma.edu |
| SPS Chapter Advisor | Dr. Hongtao Shi |
| Total Amount Received from SPS | \$300.00 |
| Total Amount Expended from SPS | \$300.00 |

Summary of Award Activities

Sonoma State University (SSU) SPS hosted the "Night of Astronomy" event at Sugarloaf Ridge State Park, home to the Robert Ferguson Observatory. Along with 35 students from SSU and nearby Santa Rosa Junior College (SRJC), we had a great time hearing presentations; observing Jupiter, Saturn, and several galaxies; hiking a scaled-down solar system trail from the Sun to Pluto and back; and, of course, chatting and telling stories around the campfire. We're happy to say this trip has really strengthened ties between SSU and SRJC science students, and we hope to see relations continue to branch and develop from this solid foundation.

Statement of Activity

Overview of Award Activity

Brief description

On Friday, April 17th, 2015, the Sonoma State University SPS chapter hosted the “Night of Astronomy” event at Sugarloaf Ridge State Park in the beautiful hills of Sonoma County, California.

Students in attendance started the night with a barbecue by our resident grill-masters, Demetri Call and Aaron Owen, followed by an evening walk to watch the sunset. Once the stars were starting to appear we had presentations by our own professors Wes Farris and Dr. Tom Targett about myths, misconceptions, and the role of skeptical inquiry in science. After the presentations, we spent a few hours in the park’s Robert Ferguson Observatory as their wonderful volunteer docents helped us have a firsthand look at Jupiter and three of its moons, Saturn, and several galaxies.

Many of us stayed up long into the night, making S’mores, chatting and forging new friendships. In the morning, after much coffee and a big fire, we headed out in a few groups to hike the park’s scaled-down solar system trail. We broke camp at noon, exchanged info, and headed home for some showers.

Outcomes

Our club made personal connections with other students in the community who share common interests. As people were leaving, we heard many positive reactions and others wanting to do this event again. In response, we made a Facebook Group for these community connections to stay informed of future activities. The Facebook group also allows those from other schools and clubs to post to the group page and let us know of other events in the area where we can support the community of physics students. We plan on continuing to add people to the group as we do more activities with students from Santa Rosa Junior College.

Audience

Our target audience included students from the Santa Rosa Junior College who were in different physics and astronomy classes. We sought out students with interests in these subjects beyond the classroom with a desire to make connections with students at Sonoma State University. We were hoping these people would be interested in making friends and working together on future events. We had 35 people attend the event with more than 20 coming from outside of SSU.

Context of the project

Our SPS chapter contains many students interested in pursuing a career in astronomy. Therefore, we decided to gather people for a night of astronomy to bring the widest range of interests to our event. Our club has done many outreach activities this semester, but they were all targeting younger students from middle and elementary schools. This event was designed to bridge this gap in ages for our outreach events. Our camping trip helped build awareness to our department and the opportunities we have at our school in both physics and astronomy. This event also allowed us to showcase two of our many excellent professors, Dr. Tom Targett and Wes Fariss, who each gave a talk designed to stimulate interest in astronomy, as well as our SSU Department of Physics and Astronomy.

Highlights and stories

As the night wound down from our eventful night we all sat around our campfire and shared stories of classes, adventures, travels, and anything else that people wanted to share. Being able to share my own stories and hear other's made me feel like I had made some really great connections with people and started some friendships. The night could not have ended in a more appropriate way for the goals of the event.

- Demitri Call

Throughout the camping trip, students took hikes in small and large groups. This allowed for much mingling and sightseeing. We were able to see the sunset, sunrise, and along the way talk about our life experiences, hobbies, jobs, and of course, science! These excursions presented many opportunities for creating connections between the SRJC and SSU students, and I know that many friends were made!

- Michael Dobbs

Since the Night of Astronomy, I've run into several new acquaintances around Santa Rosa. I love how people light up when the camping trip comes up in conversation. I had a wonderful time checking out galaxies and chatting about everything under the Sun, and it's great to see that it's built a network of lasting relationships.

- Wes Watson

One of the great moments of the trip was seeing and experiencing a diverse group of people who only just met sitting around the campfire and sharing stories as though they were already friends. Another great moment was in the morning hearing from the other students how much they enjoyed the talks, the viewing and the opportunity to connect with other students. There were many students that enjoyed the experience so much that they wanted to remain in contact and hoped we would do another event in the future.

- Aaron Owen

I truly enjoyed greeting everyone as they came in and later, while I was relaxing by the fire, I was able to get to know everyone on a much more personal level. I also loved that we were able to have the observatory with the docents. They were so happy to be there with us and their enthusiasm helped continue our friendly environment. It was so cool that we were able to create these bonds in nature, under the stars.

- Stephanie Church

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

Our primary goal in this project was to promote physics and astronomy among lower division science students and inform them about opportunities in these disciplines. As a secondary goal, we hoped to show attendees what opportunities Sonoma State University's Department of Physics and Astronomy offers its students.

Not only were we successful in our primary goal, when talking to students we found that there were actually a good number of non-science students in attendance. We had a great opportunity to show them what we do and improve their image of physics and physicists. There were several comments to this fact that their perceptions of physics and people who pursue physics have been changed for the better.

We will need to wait until the next two fall semesters to see if we succeeded in attracting new students to our department. Out of respect for the complexity of such a decision, we chose not to directly ask students if they were interested in attending Sonoma State.

Key Metrics and Reflection

| | |
|---|---|
| Who was the target audience of your project? | Local freshman and sophomore science students. |
| How many attendees/participants were directly impacted by your project? Please describe them (for example "50 third grade students" or "25 families"). | 35 students from SSU and SRJC; roughly 25 lower division and 35 upper division. |
| How many students from your SPS chapter were involved in the activity, and in what capacity? | Seven, each helping in some way with coordinating, cooking food, setting up camp, and cleaning the campsite afterward. |
| 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? | We provided about \$500 toward the trip in addition to the grant, which paid for the reservation, for food and other necessary supplies. |
| Do you anticipate repeating this project/activity/event in the future, or having a follow-up project/activity/event? If yes, please describe. | We would love to do another Night of Astronomy if we are able to secure additional funding from other sources. |
| What new relationships did you build through this project? | We've established a Facebook group to maintain connections, and plan to grow our relationship with the newly established SRJC physics club. |
| If you were to do your project again, what would you do differently? | We would put a little time between presentations and look for an outside funding source, such as a private sponsor. |

Expenditures

Expenditure Table

| Item | Cost |
|-------------------------------------|--------------|
| Observatory Fees | \$165 |
| Campground | \$173 |
| Food | \$300 |
| Tent Rental | \$50 |
| Misc. (firewood and other supplies) | \$150 |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| Total of Expenses | \$838 |

Activity Photos

All Photos by (Sonoma State University Society of Physics Students)



Making posters to welcome our guests



Getting excited to meet new people!



Grill masters ready for grilling



Going for a hike to see a beautiful sunset



Getting ready for the presentations



Presentation by professors Wes Farris



Presentation by Dr. Tom Targett
(lights were dimmed and switched to red so we can be ready for observing)



Getting ready to say goodbye