PI TAU SIGMA ANNUAL CHAPTER REPORT

2013-2014

Colorado State Tau Psi

A. Initiations

The Colorado State University Tau Psi Chapter of Pi Tau Sigma held formal initiation for new members in both the fall and spring semesters. In fall 2013, 38 junior students were eligible within the top 25% of mechanical engineering students. The cutoff GPA for this group was 3.26. Additionally, 104 senior students were eligible within the top 35% of mechanical engineering students. The cutoff GPA for this group was 3.26. In spring 2014, 49 junior students were eligible within the top 25% of mechanical engineering students. The cutoff GPA for this group was 3.378. Moreover, 130 senior students were eligible within the top 35% of mechanical engineering students. The cutoff GPA for this group was 3.208. Eligible students were sent a formal invitation to join Pi Tau Sigma through email. 11 new members were initiated into Pi Tau Sigma in the fall on October 2, 2014. 24 new members were initiated into Pi Tau Sigma in the spring on March 12, 2014. As part of the formal initiations, new members were required to recite sections of the *Pi Tau Sigma Rituals* document per national guidelines set forth by Pi Tau Sigma. With completion of these vows, new members were officially welcomed into the CSU Pi Tau Sigma organization in the presence of the officers and current members. Pizza and drinks were provided and dress was business casual.

B. Chapter Activities

The Colorado State Tau Psi chapter activities began with the annual Engineering Student Organizations Fair on August 23, 2014. The purpose of this fair is for incoming freshman engineering students to see and interact with the leadership of all the different engineering organizations. The Tau Psi chapter officers hosted an informational booth as well as an engineering problem solving challenge to encourage new students to approach the booth. The challenge involved answering one of ten engineering problems on a flyer correctly for candy. The officers described the purpose of Pi Tau Sigma as well as the various resources that the club provided to incoming engineering students, namely tutoring.

As in previous years of the organization, the Tau Psi Chapter continued providing tutoring services to mechanical engineering students. In an attempt to increase student access to the tutoring services, the officer team decided to focus all tutoring efforts on first and second year mechanical engineering courses. This provided more tutoring hours for the difficult ‘weed-out’ courses to the students who need it most. Pi Tau Sigma tutored seven courses, providing 16 hours of tutoring per week. On a case-by-case basis, Pi Tau Sigma provided one-on-one tutoring services for two requesting students.

In addition to tutoring, Pi Tau Sigma was very active in community outreach. In Fall 2012, Pi Tau Sigma participated in its first STEM night at Shepardson Elementary School in Fort Collins, CO. The tradition was continued in Fall 2013, and two other elementary school STEM nights

were added. Timnath Elementary School in Fort Collins, CO, and Ivy Stockwell Elementary School in Loveland, CO, invited Pi Tau Sigma to participate in their STEM nights. The club produced interactive STEM displays: 3D printing display with a demonstrating 3D printer; rocket display and multiple rocket launches throughout the event; NASA lift and drag experiments and display; mechatronics project display; and magic carpet pulley system for kids to lift their friends. The elementary school students and parents were excited to learn about mechanical engineering through the Pi Tau Sigma displays. Below shows a picture of several of the displays described above as well as participating members.

Figure 1. STEM Community Outreach

Pi Tau Sigma also participated in campus-wide volunteering efforts. Specifically, a group of Pi Tau Sigma students travelled to Loveland, CO, to help at the Sylvan Dale Ranch as part of Colorado State University's CSUnity day. CSUnity is an annual community service event that aims to involve all campus student organizations in a day of service. Pi Tau Sigma was assigned to Sylvan Dale Ranch which was devastated by floods in late September 2013. The group worked for seven hours to help with the cleanup process by sorting through debris and scrap metal recycling. The ranch was extremely appreciative of Pi Tau Sigma's efforts to help with the massive cleanup and rebuilding process. Below shows a picture of the entire group and two members during the cleanup process.

Figure 2. Sylvan Dale Ranch Cleanup

Lastly, the Pi Tau Sigma officers hosted a design competition during the final meeting of the semester. The design competition challenged teams to create a marshmallow launching device that was both accurate and had the longest range. Limited supplies were given to each team and a 30 minute time limit for construction was imposed. The competition involved the team placing a target at a specified location and seeing if the team could be successful in hitting the target within two attempts. The winning team as well as the four marshmallow launching designs are shown below.

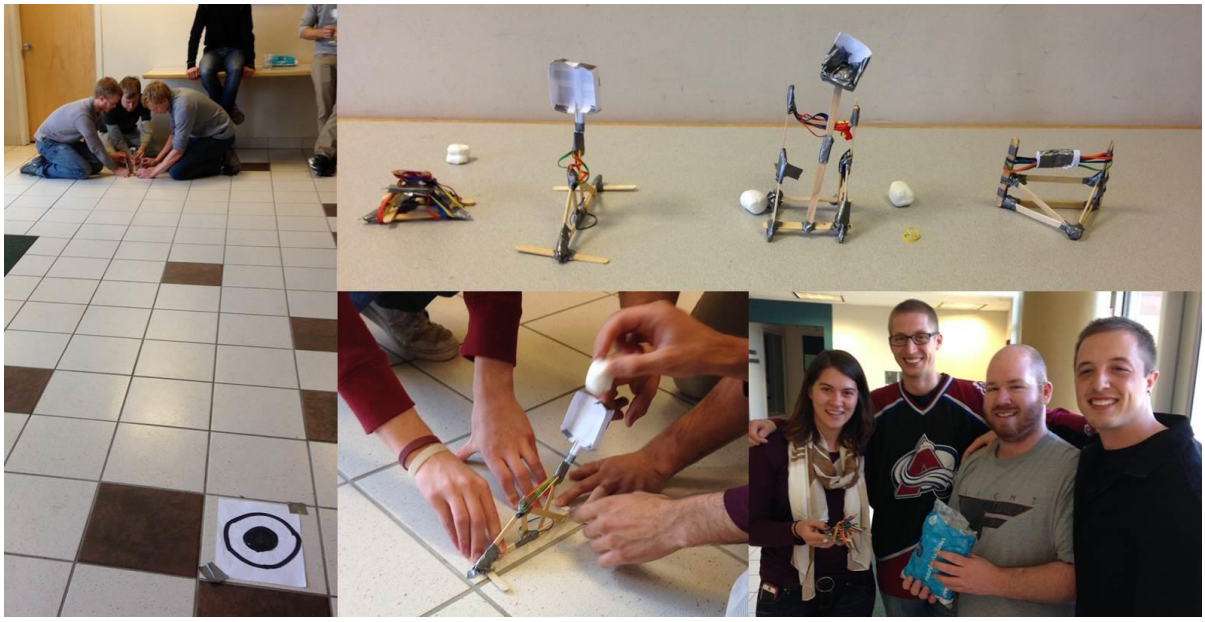

Figure 3. Design Competition

Throughout the academic year, Pi Tau Sigma maintained a monthly meeting schedule. During the meetings, officers and members collaborated on making the tutoring services as effective as possible; officers announced volunteer opportunities debriefed ones that had passed; and the officers provided an open forum for members to voice any opinions and suggestions.

C. Other

With three of the four 2013-2014 officers graduating, a significant turnover in chapter leadership occurred. Officer elections took place in April, providing sufficient time for the current officers to interact with the new officers. An officer planning meeting was held in early May to help set the vision for the 2014-2015 academic year as well as provide any information to the new officers to help ease their transition into their new roles. The new officer team for the 2014-2015 academic year is:

President: Matthew Todd
Vice President: Andrea Tripp
Secretary: Josh Krokowski
Treasurer: John Whitmore
Community Outreach: Philip Thompson

Advisor –
Dr. John D. Williams

Reporting Officers –
President: Kevin Westhoff
Vice President: John Whitmore
Treasurer: Darryl Beemer
Community Outreach: Taylor Bevis