PI TAU SIGMA ANNUAL CHAPTER REPORT

2014-2015

Colorado State University 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, 36 junior students were eligible within the top 25% of mechanical engineering students. The cutoff GPA for this group was 3.18. Additionally, 115 senior students were eligible within the top 35% of mechanical engineering students. The cutoff GPA for this group was 3.18. In spring 2014, 53 junior students were eligible within the top 25% of mechanical engineering students. The cutoff GPA for this group was 3.315. Moreover, 143 senior students were eligible within the top 35% of mechanical engineering students. The cutoff GPA for this group was 3.151. Eligible students were sent a formal invitation to join Pi Tau Sigma through email. 12 new members were initiated into Pi Tau Sigma in the fall on October 8, 2014. 6 new members were initiated into Pi Tau Sigma in the spring on April 22, 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

Engineering Student Organizations Fair

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.

Tutoring

One of the biggest changes that Pi Tau Sigma made this year was in the free tutoring service that is provided. In previous years each member was available one hour per week to meet with students. This resulted in a very scattered and broken schedule. To help solve this issue we consolidated the tutoring hours to Wednesday and Thursday evenings from 4-7pm. The tutoring sessions were also held in an engineering lab. This resulted in a significate increase in attendance at the tutoring sessions. In the 2015-2016 year the Tau Psi chapter hopes to continue this alteration to a great service that Pi Tau Sigma is known for at CSU.

Figure 1: Tau Psi Tutors

STEM Night

In addition to tutoring, Pi Tau Sigma was very active in community outreach. In the fall 2014 semester and the spring 2015 semester Pi Tau Sigma had members attend the Shepardson Elementary STEM Night. At these STEM nights members show elementary aged students projects that they are working on in courses at CSU. 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 2: Tau Psi Member Describing an Engineering Project at STEM Night

Public Outreach

In the fall semester of 2014 the Tau Psi chapter contributed to the annual Fall Cleanup event held at CSU. This is a campus wide event that has been gaining popularity in the recent years. In 2012 over 1,000 volunteers helped 171 elderly and/or physically limited neighbors in the Fort Collins area. Our chapter had 6 volunteers cleanup leaves, branches, and gutters for an elderly woman that has lived in Fort Collins her entire life. In the spring semester of 2015 the Tau Psi chapter

took part in CSUnity. This event is similar to Fall Cleanup but it focuses around helping out residents along with local businesses as well. The Tau Psi chapter had 10 volunteers go to Greenbriar Park to help with tree ring mulching.

Figure 3: Top Pictures at CSUnity. The Bottom Two Pictures Fall Cleanup

Design Competition

Last year Pi Tau Sigma had a design competition at the last meeting. This academic year the Tau Psi chapter had a design competition at every monthly meeting. This significantly increased member attendance to the meetings and also increased student's interest in joining this honor society. Some of the competitions held include 2 liter bottle rocket launch, mouse trap car race, catapult competition made with popsicle stick and rubber bands, etc.

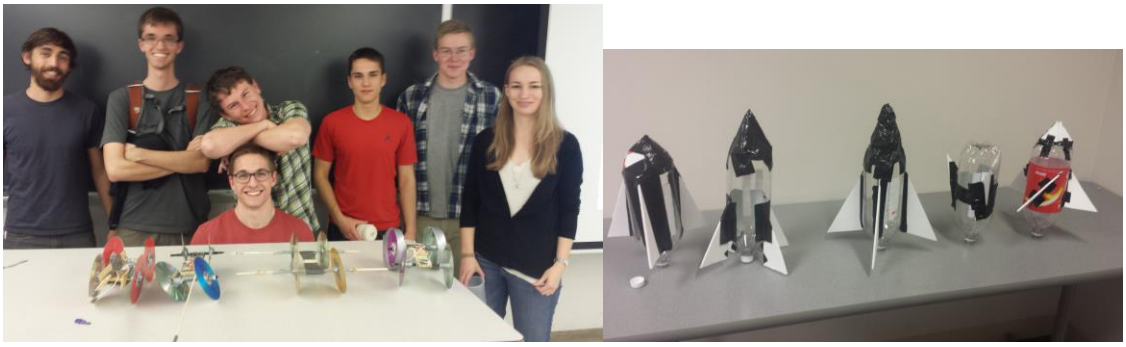

Figure 4: Two Design Competitions

Wolf Robotics Tour
Wolf Robotics is an engineering company in Fort Collins, Colorado that incorporates robotics in manufacturing to create semi or fully automated robotic solutions. The Tau Psi chapter was responsible for two tours this year.

Figure 5: Tour Group in front of Wolf Robotics

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

Officer elections were conducted at the beginning of April to passover Pi Tau Sigma responsibilities to the new officers. Elections were done by having each interested member volunteer for available positions and, if necessary, provide a brief summary of previous applicable experience to being an officer. After elections, new members began to share some ideas regarding new goals for the 2012-2013 year including:

1) Maintaining tutoring responsibility
2) Improving overall recruiting rates
3) Allow for much more interaction between tutors and underclassmen by implementing new internet-based communication tools

New members were then given access to all necessary information for a smooth transition of officer duties. The new members include:

President - Matt Todd
Vice President - Marie Dutton
Treasurer - Adam Kuehster
Secretary - Connor Redalen
Public Outreach - Micheal Lambert
Event Manager - Nate Overton

Advisor –
Dr. John D. Williams

Reporting Officers –
President: Matt Todd
Vice President: Andrea Tripp
Treasurer: John Whitmore
Secretary: Josh Krokowski
Community Service Chair: Phillip Thompson