PI TAU SIGMA ANNUAL CHAPTER REPORT

2013-2014

Texas Tech Sigma Epsilon

A. Initiations

The candidates are chosen to be eligible for the initiation process based on class ranking, GPA, and classification. Each candidate must have a grade point average that exceeds 3.25. For first semester Juniors, they must be in the top 25% of their class, second semester Juniors must be in the top 33% of their class, and Seniors must be in the top 35% of their class. Second semester Seniors who are graduating must obtain special permission from the officers and the faculty advisor in order to follow through with the initiation process. As for graduate students, they are eligible to initiate if they possess greater than a 3.5 GPA.

In the Fall 2013 semester, 19 initiates were inducted into Pi Tau Sigma, and in the Spring 2014 semester, 8 initiates were inducted. The semester-long initiation process consists of several components. The initiates must attend weekly meetings for a minimum of 10 weeks. At each meeting a weekly quiz takes place, which contains a variety of information- Pi Tau Sigma history, Sigma Epsilon chapter history, officer names, and the preamble to the constitution. The initiates must obtain at least an 80% on each quiz in order to pass, and they are not allowed to miss meetings. In addition, each individual is required to file, sand, polish, and paint a bent. These keys are inspected by the initiate coordinators throughout the semester, and must receive the final approval by the president at the end of the semester in order to initiate. Each key must be of good quality because they are given to the graduating seniors at the initiation ceremony, and this helps to continue to instill the sense of pride in the organization. Another requirement of the initiates is the completion of a signature sheet. This "sig sheet" contains the names of all the active members, officers, graduate students, and faculty members in the chapter. The initiates are required to obtain 80% of the signatures of the active members, and 100% of the signatures of the officers, grad students, and faculty. This part of the process is important for the initiates in meeting other members of the organization. The final requirement is the attendance of service events. Each initiate must attend at least three of the service events held throughout the semester.

If the initiates meet all of the above requirements, then they have qualified to be initiated into Pi Tau Sigma. The initiation ceremony is held once a semester on the evening of the last day of classes. In the Fall 2013 semester the ceremony was held on December 4, 2013, and the Spring 2014 ceremony was held on May 6, 2014. All officers and the faculty advisor attend the ceremony, and all of the actives are encouraged to attend as well. Everyone in attendance is required to be in formal dress. When the initiates arrive that evening, they must first have their signature sheets and keys inspected for completion and thoroughness. Next, they are required to take a Pi Tau test to demonstrate their knowledge of the preamble and of the organization's history, and then they take a Mechanical Engineering test on junior-level subjects. Once these are completed, they are all led to the room for the official ceremony. The room is dimly lit and has the active members lined up and waiting for them. The initiates stand at the front of the room, where they are read the rituals of Pi Tau Sigma by the President and Vice-President, and they verbally agree to uphold the honor that comes with being members of the organization. After being officially inducted, they are congratulated by the officers and actives and everyone enjoys

a formal meal together. Officer elections are also held that evening, and graduating seniors have the opportunity to choose one of the initiates' keys. Finally, the celebration concludes with an activity near campus where the new initiates can socialize with their new fellow members.

B. Chapter Activities

Each semester begins with a "smoker," a barbecue dinner. This dinner is for the officers and the students who are eligible to initiate. It is a formal dinner where the initiation process is explained in detail to the new candidates. The President first gives an introductory speech congratulating the students, and then the faculty advisor also gives a short encouraging speech. Next, the three Initiate Coordinators hand out the paperwork and explain thoroughly the steps in the initiation process. It is a chance to socialize and meet the new officers and encourage all of the candidates to begin initiation.

Initiate Smoker

During the semester, at least three chapter meetings are held. At these meetings, chapter information is discussed, there are often guest speakers, and members have the chance to socialize with a provided dinner. We typically have one meeting a semester that is for Pi Tau members only and is led by the President, and the rest of the meetings are usually hosted by company sponsors. We also collaborate with ASME for some of these company info sessions. This year, we were able to have National Instruments, Stress Engineering, and Halliburton representatives come give presentations about their companies and discuss available job opportunities. These info sessions are a great way to network, because they contain the top Texas Tech Mechanical Engineering students all in one place at one time. In Spring 2014, we also had a chapter meeting where we hosted a former Sigma Epsilon President who presented about his

research he conducts at Texas A&M. In addition, we also have weekly officer meetings, in which we discuss and plan chapter meetings, service events, socials, and fundraising.

Active Members at a General Meeting

The amount of service events and community outreach conducted each semester is part of what makes the Sigma Epsilon chapter unique. Each semester, at least 3 service events are held and usually there are more. The initiates must attend at least three in order to initiate, and the active members must attend at least one in order to remain in good standing. We have a very dedicated group of officers and actives, and so we often have members who attend much more than the minimum amount required.

The service events that were held during the 2013-2014 school year are as follows:

- *Lubbock Arboretum*

  Volunteering at the Lubbock Arboretum is a tradition with the Texas Tech chapter. This event was held both semesters for the 2013-2014 school year. The Arboretum is a volunteer-ran public park, and these volunteers really appreciate it when our group of around 30 young students comes in to help them with the heavy work. The park is a large plot of land that contains a lake and many exhibits with various plant life. When we volunteered here during both semesters, we helped out by trimming trees and bushes, clearing weeds, carrying piles of sticks and disposing of them, picking up trash, and cleaning up the flower beds.

Helping out at the Arboretum

Arboretum Fall 2013

- *Meet ME*

  This is another event that is also a tradition every semester with the Sigma Epsilon chapter. For Meet ME, we bring in around 30 middle school students from underprivileged areas in the Lubbock community. The goal is to show the kids around the Mechanical Engineering building and answer any questions they have, so as to encourage them to stay in school and to consider studying engineering in college. At the beginning of the event, the faculty advisor and another professor give a speech about engineering and its practical applications. Then, we give them tours of the labs in our building- Robotics, Human Centric Design, Thermal Fluids, and Materials & Mechanics. In addition, the students in the Society of Automotive Engineers give a demonstration of their vehicle, and the operator of the manufacturing shop also gives the children a tour. Next, the kids split up into teams and compete in a design contest. In the Fall semester, the contest was to build a boat to float in a tub of water, and the winner was the team whose boat could hold the most pennies before sinking. In the Spring, the contest was to build the tallest standing tower given a specified amount of straws, pipe cleaners, toothpicks, tape, and marshmallows. The day concludes with a pizza lunch, and we answer any more questions that they might have.

Our Faculty Advisor in the Thermal Fluids Lab during Meet ME

Meet ME Fall 2013

The Design Competition during Meet ME

- *South Plains Math and Science Competition*

  Our chapter had the opportunity to help out the local ASME chapter with their South Plains Math and Science Competition in the Spring of 2014. Students from the area in

grades 6-12 came to Texas Tech to participate in math and science tests and in an engineering team design competition. Our members helped to proctor tests and to interact with the students participating.

- *Other*

  In the Spring semester, the class of initiates volunteered at the Relay for Life 5k on the Texas Tech campus. They were lined up at various points in the course for directing runners, but unfortunately the race was not able to finish because of inclement weather. Another initiate-only service event that was planned was the Food Bank in the Fall of 2013, but this event was canceled due to icy travel conditions. However, these are events that we have volunteered for in the past, and that we plan to continue to help out at in the future.

Organizing Pi Tau social events is another way that we keep our members actively involved. These events are completely optional, but they are very enjoyable and help to build a sense of camaraderie and friendship. In the Spring semester, we participated in Texas Tech Arbor Day. This was a very fun event that consisted of live music, free food, free t-shirts, and students sitting outside on the lawn enjoying themselves. Then, we planted flowers at our designated planting spot in the engineering key. In addition to being an enjoyable day in the sun, this event also helped to beautify our campus and bring Pi Tau into recognition within the university. Another social event which was coordinated both Fall and Spring semesters was a bowling night. We invited ASME members to join us at the bowling alley to socialize and take a break from studies. In the Fall semester, we had a tailgate before a Tech football game hosted by Koch Industries, in which we joined with ASME, IEEE, SWE, and Tau Beta Pi. This was a very fun afternoon where members were able to socialize and also network. Perhaps the favorite social event of the year was a party during the day hosted by the Social Chair. It was held in his backyard and had a 16-foot Slip ‘n Slide for the day! We socialized, played washers, and grilled hamburgers. It was a great way to wind down the Spring semester and relax before finals started.

Arbor Day Spring 2014

Pi Tau Social with Slip 'N Slide

In addition to the activities stated above, we try to stay as active as possible in the Mechanical Engineering department and within the College of Engineering. For socials events, it is very helpful to team up with other organizations, like ASME, SWE, IEEE, and Tau Beta Pi. ASME is the organization that Pi Tau Sigma works with the most. We join with them to meet with the Industrial Advisory Board every semester. This is a group of Mechanical Engineering industry professionals who meets with Pi Tau and ASME twice a year to listen to our feedback. This allows us to give direct input to the industry so they can discuss with the department on how to better prepare students for the professional world. Pi Tau also joins with ASME to create the Student Advisory Board, a committee of officers that meets with the ME department chair to discuss how our classes are coming along, allowing us to give direct feedback on our opinions about the department. Our chapter also offers free tutoring to all students. Each officer has his or her office hours posted on the door, and students are welcome to come by the office at any time to receive tutoring in their classes. Along with that, this Spring we started a new event- a finals review/ study session available to all engineering students. On Dead Day, we reserved a room where officers and active members were present and available to all students who wanted to come in and ask questions. It was also an option for students to come in and study for finals, simply to give them a quiet, studious environment. This was a very successful event, and important for Pi Tau in making our name known among the underclassmen. Finally, this year we also participated in the Engineering Kick-Off Fair. This takes place at the beginning of the

school year in the Fall, where there is free food and games and booths set up. Pi Tau had a table at the fair and informed students about our organization and encouraged them to make good grades so they would be eligible to join.

Engineering Kick-Off Fair

C. Other

This year we were able to send four representatives to the national convention at Texas A&M. It was a great opportunity to network with other chapters and with industry professionals. One of the members on the industry panel at the convention was a Texas Tech graduate and a project manager at Halliburton, and so we had the opportunity to meet him. As a result, he came up to Lubbock in May 2014 to give a Halliburton info session to our members. In addition, our chapter also won third place for Outstanding Service for the previous year.

Texas Tech Officers at 2014 National Convention

This academic year we were able to raise many funds for our chapter. Our fundraising chairs were able to obtain a signed Ian Kinsler jersey, a former Texas Rangers professional baseball player, for which we sold tickets for a raffle drawing. We posted flyers and set up tables in an engineering building and in the Student Union Building in order to sell tickets for this raffle.

Another way we worked to increase the Pi Tau presence was through social media. We already had a Facebook page for our chapter, but this year we also set up Instagram, Tumblr, and Twitter accounts. We hope to continue to grow these means of communication in the years to come, by posting announcements and photos for our members. We also started a new website this year, which can be found at www.ttu-pitausigma.com. This site contains very useful information for members and initiates. The initiates have their own section on the site, which has a test bank of Pi tau quiz questions, all of the initiate forms, and a list of the members and their photos. The site contains an officer section, with a short biography and photograph of each officer. It also contains announcements, photographs, highlights, useful links, and members' accomplishments. It is important for our chapter to keep up to date with the current technological age, so that our members can access necessary information easily.

This year will be the first of several years that we will send out a newsletter to Sigma Epsilon alumni. In the Fall we began to compile an official contact list of past alumni, and so the newsletter will be sent out to these people by the end of the Spring 2014 semester. We have also started a new tradition of a Pi Tau Sigma photo album. We plan on making a scrapbook with photographs and descriptions of events each year, so that future members will have hard copies of the history of our chapter.