Pi Tau Sigma Annual Chapter Report

2019-2020

Texas Tech Sigma Epsilon Chapter

A. Initiations

Our initiation process starts with getting our initiation coordinators to contact the college of engineering's associate director to send out the applications for the qualifying students. We send emails to the top 25% of juniors and seniors with a minimum GPA requirement of 3.25. Those eligible must have taken or currently be taking a junior level mechanical engineering class. In the email is an application they must fill out and attach their resume and an unofficial transcript. We require them to get this application to us in about 2 weeks after the email is sent. Once we get all the applications, we go through one last time and check that they meet all the requirements to join Pi Tau Sigma. After we have sorted through the applications, the initiate coordinators personally call all the accepted initiates and invite them to a smoker. At the smoker, we inform them about what our organization does and why they should consider joining Pi Tau. We also explain how the initiation process works and set up the times for the initiate meetings. These meetings happen twice a week and are for the initiates to have two chances to take a weekly quiz that has basic Pi Tau Sigma history questions. These meetings are mandatory for the initiates to attend the entirety of the semester. For the quizzes, we require our initiates to gradually memorize the preamble to the Pi Tau Sigma constitution, along with other basic history and current happenings within our chapter. Besides the quizzes, these meetings are meant to keep the initiates engaged in the society to ensure that they will be active members after initiation.

First, the new initiates have to pay dues. This is a onetime fee of $75 which includes a shirt at the end of the initiation process. After they pay dues, they receive a key and a signature sheet; with the key they have to file and polish until it is shiny and has to be approved by the president of the chapter. The key must show progress throughout the semester, and must be done to be initiated. For the signature sheet, the initiate is required to get 80% of the active members and 100% of the officers, graduate students, and faculty signatures. Along with the signature sheet and the key, we require the initiates to attend 3 service events. These service events will help the initiates fill out their signature sheets as well as see how Pi Tau Sigma helps the community.

The initiation ceremony starts around 5 PM for the initiates. They first are taken into a room where they take two exams. On the first test, they are required to make a 100 on to be accepted into the organization. The test has basic Pi Tau questions that they have been quizzed on all semester, so they are well prepared. The second test is a mock FE engineering test we use to have some fun with the initiates. This test includes questions from engineering classes that most of the initiates will not know how to do. After the initiates all passed the first exam, initiation begins. This is where the president and vice president recite the RITUALS OF PI TAU SIGMA to the initiates making them full-fledged members. All actives are invited to come, as well as our faculty advisor Dr. Darryl James. At the end of initiation, we select the new officers for the upcoming semester.

Figure 1: Fall 2019 Initiates

Figure 2: Initiation Participants Spring 2020

The two initiations that happened this academic year included a large number of new members. On December 4th, 2019 we had our Fall 2019 initiation, which included an induction of a total of 14 new members. On May 5th, 2020 we had our Spring 2020 initiation, which included and induction of 16 new members. Our Spring 2020 initiation was modified from its usual format due

to closings from COVID-19. A virtual initiation was held in which the initiates were required to send their keys in to the President, Sheela Sharma, in advance for inspection, and were also still required to take the first initiation test about Pi Tau and our chapter. The readings by the President and Vice-President were still conducted, though the voting on new officers was delayed until the following day (also held virtually).

The initiates here at Texas Tech are an important function of our organization. Initiation is the largest event of the semester and the largest expense that we have. Almost everyone in the organization comes and initiates finally see all their hard work come to fruition. It is a formal event that bookmarks the end of that semester and the beginning of a new chapter for Pi Tau. Officer elections are held, and the new guard replaces the old guard. Initiation is always held on the last day of classes, so the day after is Individual Study Day for school. After initiation, all the members are invited to a social at one of the officer's houses to let of steam and socialize with the rest of the organization. At this end of the year get together, people have the chance to say goodbye to the graduating seniors and congratulate the new members.

Figure 3: Fall 2019 Graduating Seniors with Initiates

B. Chapter Activities

Each semester, our members participate in several service events. One of our largest events is the Lubbock Arboretum. The Arboretum is a beautiful park here in Lubbock that many locals go to explore, discover, and connect with nature through a variety of plants, trees, flowers, and various animals. During our event we help the grounds keeper clean the place up, clean out old flower beds, clear out old stumps, dispose of dead plants, etcetera. This helps our members and initiates become friends, while helping the community at the same time. We go to the Arboretum at least once every semester, of course Spring 2020's trip was cancelled as it would have been held in April but we had been in constant communication with the Arboretum all semester before eventually having to call it off.

Figure 4: Fall 2019 Arboretum Group Picture

Our other large event is Meet ME, where we host middle school kids at the mechanical engineering department at Texas Tech University. Middle school students got to interact, connect, and learn from advisors, graduate students, and current mechanical engineering students. At the beginning of the day we have a well-known professor give a speech about what engineering is all about. Then we take them around to all the engineering labs we have, such as the robotics lab or the combustion lab. After the tour we feed them some food and then host a friendly design competition. For the design competition, we present the students with a challenge and have them design something in a given amount of time with limited materials that can complete the challenge, and then we test it. Each semester we try to change the competition. This past fall we challenged the students to build a house out of newspaper and a limited amount of scotch tape. The houses would then be tested by placing them on a table with a fan on the end. The fan's speed and size were then increased from house standing fan to the industrial sized fan from our engineering shop. The kids were nervous but incredibly excited to get a hands-on look at a problem West Texas engineers experience every day. Figure 6 shows some of the kids and their houses placed before the fan (just behind the camera). Hosting these students gave Pi Tau Sigma members an opportunity to inspire young students with their interest in mechanical engineering while also providing them a fun learning experience for the day.

Figure 5: Fall 2019 Students with Formula SAE

Figure 6: Fall 2019 Students Design Competition

Another event we participate in is working with the South Plains Food Bank and host a food drive. The South Plains Food Bank mission is to provide food for locals in need while preserving dignity and offering self-sustaining opportunities. By participating in providing canned foods through the

food drive, Pi Tau Sigma members have given assistance to those in the community that may not have the means to provide meals for themselves or their families.

Due to cancellations this spring we were unable to participate in many of our usual events such as Arbor Day or Tech-to-Town. Both are events hosted by Texas Tech to help the community. Arbor Day is held every April for student orgs to reserve a plot around campus and plant flowers and shrubs to improve the campus. Tech-to-Town is an event to send organization members out into the Lubbock community where college students can do good for a few hours in helping with various projects.

We were lucky to have been able to participate in Tech's Community Engineering Fair in February. Tech's engineering department hosted this event to bring in young students from around the Lubbock community to learn about engineering. We hosted a booth which taught students about electrical resistance and centrifugal forces using a paint spinner. The students were able to add and remove resistors from the circuit that would power the motor spinning a small piece of paper. When they had established a speed they liked, they would drop paint onto paper and get to see how the paint was flung out depending on how close the paint drops were to the center. We had great conversations with dozens of kids that came by all day.

Figure 7: Texas Tech Community Engineering Fair Spring 2020

Networking is an ideal that we try to uphold both in connections made between our members and potential employers. Many companies reach out to us every year and ask to speak to our members or ask us to pair with an organization from another engineering discipline to grow these connections. Companies we worked with to hold info sessions this year included: Schlumberger, Dynetics, Solvay, and an intended one for the Spring with Bell Helicopter. After some of our info sessions we invite the recruiters to do a resume critique event with our members and initiates, this spring we had Solvay members at our resume critique event and had members there to speak with the representatives for a couple of hours following their event.

Figure 8: Pi Tau Sigma Schlumberger Info Session

Another very important part of this networking is for our members and initiates to become friends and develop great relationships with each other. This has become a larger focus of our org the past few semesters. The more we get initiates involved, the more active they will be when they are members. With active members we can have more people at social events and also better alumni retention. This is why we have almost weekly social events. Our social events include bowling, going to the golf range, ultimate Frisbee games, softball Intramural games, board game nights, Friendsgiving, and hosting tailgates. Having these social events helps our members and initiates to become better friends. This also helps them wind down from the stressful life of being an engineering student.

Fundraising events are also an integral part of our chapter's activities. These events provide a time for our members to socialize but also to give back to our chapter. Some of our traditional fundraising events include sponsored nights at Chipotle, Torchy's, and Panda Express. This semester however we were given the unique opportunity to participate in a fundraising activity while also giving back to the Tech community. Texas Tech is home to a nationally ranked meat judging team and department, and this department will pay groups to help them do studies on the different kinds of meat they serve and judge. Our organization got to send some members to participate in one of their studies judging different cuts of beef, our members got to taste some award-winning meat and support the chapter all at the same time.

Figure 9: Pi Tau Social Event at Fuzzy's Tacos Fall 2019

In the Spring, a few delegates from the Sigma Epsilon chapter went to Rochester, NY for the Pi Tau National Convention. The goal for us was to show other schools how successful our chapter is. I believe we succeeded in this by showing how involved our initiation process is and always being personable and ready to socialize with anybody. We connected with several of the chapters from other schools in Texas and began planning out an event for the Texas chapters to get together, we hope to plan out more details for this possible event in the fall to be held sometime next school year.

Figure 10: National Convention Spring 2020

For the next academic year, we are planning to have an even more successful year by serving our community as well as having many more opportunities for our members to develop lasting friendships.

C. Other

The Sigma Epsilon chapter has been working hard to get a Pi Tau Sigma monument in front of the ME department for several years. Last year we manufactured the 2-foot key and this fall were finally able to host an unveiling of our key. We invited our two largest donors to thank them and all our alumni. We hosted the event on Homecoming weekend, so the event served as a celebration of Pi Tau and a tailgate for the football game. We had a great turnout of members, alumni, and professors to support and celebrate the contributions that Pi Tau has made to Texas Tech.

Figure 11: Pi Tau Sigma Key Unveiling