PI TAU SIGMA ANNUAL CHAPTER REPORT

2013-2014

Texas A&M Sigma Delta

A. Initiations

1. Selection Process

The selection process each semester begins with our department sending us a list of students who are eligible to join. The eligibility requirements to join are two-fold. The first portion is the credit hour requirement. Actually, for our chapter, we have chosen to make it more of a class specific credit hour requirement. Instead of saying a set number of hours must be completed, say 60, we require our pledges to have completed, or be currently registered for, MEEN 260 (Mechanical Measurements). MEEN 260 is generally taken the first semester of a student's junior year and therefore they normally do meet the 60 hour mark. The reason we have chosen to base eligibility off of a class instead of 60 hours is because there may be a case where a student is over 60 hours, but has yet to take any mechanical engineering classes. A student can surpass 60 credit hours by taking all their basic, university required classes and waiting on their MEEN classes. In this case, even though a student's GPA may meet the requirement, they have not proved themselves in the mechanical engineering curriculum and therefore should not be eligible for Pi Tau Sigma.

The second requirement for eligibility is GPA. To be eligible for acceptance into our chapter of Pi Tau Sigma, juniors must be in the top 25% of their class and seniors must be in the top 35%. Generally speaking, the GPA that normally meets these percentage requirements is a 3.5-3.6 on a 4.0 scale. One final topic that should be discussed concerning the selection process is graduate students and faculty. The eligibility requirements for graduate students that we induct are based off of the rules set forth in the National Constitution. The same is true for the induction of faculty. This year we inducted two faculty members to increase the faculty involvement with Pi Tau Sigma. Our chapter continually selects new faculty to add as members of Pi Tau Sigma in order to maintain prominence in the Mechanical Engineering Department.

Once we get the names of eligible pledges, we send letters in the mail, one to their personal address and one to their parents. This year we are going to begin to send the letters out at the first of August and mid December in order to get support from family members. Secondly, we reach out to the eligible pledges through email inviting them to attend an informational session. We hold two such sessions in order to accommodate varying schedules. These sessions provide us a chance to tell prospective pledges more about our organization, why they should join and how they can benefit, and finally the requirements to join.

2. Requirements

The requirements for initiates to join our chapter of Pi Tau Sigma seem to be a hot topic that ends up getting discussed every semester. Our chapter is continually trying to increase its pledge class, and through surveys, it is always determined that the number one reason for

students passing up the chance to join our society is that they think it will be too much work. Although this is a valid argument, there is a flip side and that is, without requiring anything to pledge, membership in the society won't mean anything. Looking at one's GPA is enough to determine their intelligence and work ethic, but when someone goes through a lengthy process to join Pi Tau Sigma, it gives them a leg up on their peers. It shows they took initiative and are willing to go above and beyond to further their career. Our chapter is always trying to find that seemingly fine line between not having so many requirements that students get deterred, and having enough requirements so that it actually means something to be a member. In an attempt to target the lower level students, we are going to open up social events and service projects to the Department of Mechanical Engineering for future semesters. The idea behind this is to create a brand for Pi Tau Sigma at Texas A&M. This brand will be seen as the next generation of leaders, and will entice younger students to aspire to be a member of Pi Tau Sigma.

There are a host of requirements for pledges to complete and they are as follows. To pledge, students must pay their dues, pass a pledge quiz, attend two of our four or five corporate meetings, two of our five or six socials, make a pledge board and meet all of its requirements, participate in a pledge project, service project, and fundraising project, and lastly, attend the Initiation Banquet. For the pledge board, students are given a piece of plywood and must make at least one cut, apply one surface treatment, and then get signatures from all of the officers and pledges, and a certain number of signatures from active members and faculty members. The pledge project differs each semester but is intended to be a way in which the pledges can further our organization, generally through an increase in publicity. The service and fundraising projects require pledges to serve the community and raise money for our organization, respectively.

3. Initiation Ceremony

Our Induction Ceremony is held during dead week, the week before finals. It usually starts around 7:00 PM and lasts until close to 9:30 or 10:00 PM. The ceremony for the fall semester was held December 2nd and 16 students and one faculty member and one industry leader who earned his Ph.D. from Texas A&M University were inducted. The ceremony for the spring semester was held on April 30th and 15 students were inducted. Our Induction Ceremony begins with dinner catered by a local restaurant usually in buffet style. After dinner the keynote speaker gives a presentation. In the fall semester, the speaker was Dr. Richard Alexander, retired Department Head of Engineering Technology and Industrial Distribution and Mechanical Engineering professor from Texas A&M giving a presentation over becoming a better engineer and human being. In the spring semester our incoming faculty advisor, Dr. Timothy Jacobs, presented over his research in internal combustion engines and the importance in continuing education. Dr. Jacobs has been teaching at A&M for around 9 years and recently took on the title of Undergraduate Program Coordinator, and concluded his presentation with his goals for Pi Tau Sigma over the upcoming years. He is relieving Dr. Ranjan, who will be moving to Georgia Tech in the Fall of 2014, as our Faculty Advisor. After the presentations, we go through a few other typical banquet activities such as introducing new pledges, officers, and giving a chapter update of the current semester. This semester was a bit unique as we had a few awards to hand out. The first two awards we gave out were to the Mechanical Engineering Department Head Dr. Andreas Polycarpou and the

Department of Mechanical Engineering. These awards were given in appreciation for the collective effort put forth to help produce the National Convention this February. The third award given out is an annual award given to an outstanding professor that has impacted the undergraduate students in our department. The officer core honored Dr. Harry Hogan for his commitment to the undergraduate program, serving as the Undergraduate Program Coordinator for the past 10 years. A final unique award was given out to our Faculty Advisor, Dr. Devesh Ranjan, for his support to Pi Tau Sigma over the past few years. Dr. Ranjan has been responsible for many of the initiatives and the progress the Texas A&M chapter has made over the past few years. Dr. Ranjan made some closing remarks before all guest were dismissed to begin the initiation process. That leaves only the initiates and the officers so that we can proceed to the rituals and actual inductions. In this portion, the students are led outside so that the officers can prepare for the inductions. This includes turning off the lights and getting our lightboard ready. The lightboard contains the Pi Tau Sigma Crest and Insignia along with lights for each important part. These lights are turned on progressively as each part of the Crest and Insignia are introduced during the reading of the rituals. Once the officers are ready, one of them leads the pledges in, with their eyes closed, and they form a line facing the lightboard. At this point, they are asked to open their eyes and the President and Vice President read them the rituals, having them respond when required. Once this is finished, each pledge signs the 'Blackbook' and is officially a member of Pi Tau Sigma. This completes our Induction Ceremony.

Figure 1. Fall 2013 Pledge Class

Figure 2. Spring 2014 Pledge Class

B. Chapter Activities

1. Corporate Meetings

Corporate meetings consist of someone from industry giving us their time in the evenings and making a presentation either about their company or another subject that will help to guide our initiates in their future career. These meetings give the initiates a chance to not only network with representatives from some of the largest engineering firms, but also to learn more about these companies and what they are doing in terms of research, new technology, and the like. In the fall semester we had speakers from BP, Cameron, Enterprise Products, National Instruments, SpaceX, and Stress Engineering. In the spring semester we had speakers from Caterpillar, Dow Chemical, Dresser-Rand, and Schlumberger.

2. Socials

Each semester we have socials where our initiates are able to let loose, have a little fun, and network among themselves and other organizations. In the fall semester we had a social in which we barbequed and played volleyball, a pizza party with the faculty from our department, a bowling night at Grand Central Station, and a social where initiates began work on their pledge boards. In the spring semester we had a social at Mt. Aggie where we went sledding, the board making social, the faculty pizza lunch social, and a social where we played broomball at the local ice-skating rink. Pictures of these events can be seen below.

Figure 3. Pledge and Prof. lunch

Figure 4. Broomball social

Figure 5. Mt. Aggie social

Figure 6. Pledge Board social

3. Projects

Each semester, initiates are expected to take part in a fundraising project and service project. The fundraising project usually consists of selling t-shirts that have been sponsored by an engineering company. Our chapter has begun to focus on service projects each semester. This gives pledges an easy opportunity to give back to the community. In the fall our chapter adopted Lemon Tree Park through a community development program. The chapter is expected to up keep the park for a two-year stent and is a requirement for all pledges. We also hosted a canned food drive with through the Department of Mechanical Engineering for the month of November. We were able to collect over 200 lbs of canned food for those in need of food. For the spring semester, the pledges were again required to participate in a park cleanup day. Another big service event we take part in is the Big Event. The Big Event is the nation's largest one-day, student run service project, which gives Aggies a chance to say thank you to the community. Students go to the homes of residents and serve them through chores such as raking, tree trimming, painting, mulching, moving heavy objects, and much more.

Figure 7. Lemon Tree Park cleanup

Figure 8. Big Event service event

C. Other

Our chapter had the distinct honor of hosting the Pi Tau Sigma National Convention for the 2013-2014 academic year. This event required a great deal of planning, and ultimately was a grand success as a result of all the hard work put in from our officer core.

Figure 9. Group photo of 2014 National Convention

The event began with a welcome dinner at the Hilton Grand Ballroom, sponsored by BP. Dr. Mun Young Choi, National President of Pi Tau Sigma, made an introductory speech about the history of Pi Tau Sigma and conducted a roll call to represent each chapter in attendance. Dr. Andreas Polycarpou Department Head of Mechanical Engineering at Texas A&M University was chosen by the officer core to make the opening keynote speech. In his speech Dr. Polycarpou congratulated the students on their success, and encouraged them to continue on the path of success, by following their heart, fueling their passion with a desire to make a positive impact in the world, and never giving up.

Figure 10. Dr. Andreas Polycarpou giving Friday's keynote speech

After the keynote address, breakout discussions and meetings covered the following topics: Chapter Best Practices and History of Pi Tau Sigma, Benefits of a Master's Degree for Academic and Industrial Careers, and Convention Planning & Improvement Ideas.

The breakout sessions were followed by a Friday Night Social Event at Grand Station Entertainment in College Station, where students enjoyed a night of bowling, laser tag, mini golf and pool.

Figure 11. Dr. Ranjan and Ms. Schafer leading a breakout session

Figure 12. Social event at Grand Central Station

The events of the following day included a preview of the Illinois UC – 2015 100th anniversary convention during breakfast. Plenary sessions were held, in which Dr. Alex Moutsoglou (National Treasurer of Pi Tau Sigma) gave updates on the current financial standing of the organization and votes were cast for national officers of the society. After these plenary sessions a Company Panel Discussion session was hosted on the topic of the **'Future of the Mechanical Engineer'**, with participation of representatives from Halliburton, BP, and Schlumberger.

Figure 13. Company Panel Discussion session

Lunch was held at the MSC Ballroom sponsored by Schlumberger along with a presentation by Larry Leising (Advisor and métier expert at Schlumberger). After lunch, students enjoyed light activities such as Chapters Interaction Trivia Event and got their group photo taken.

A career fair followed, which was a great recruiting event for the convention sponsors, as they got to meet the best mechanical engineering students in the country. Special emphasis

was devoted to the career fair, as the event would not have been possible had it not been for the generous donations from the companies in attendance.

Figure 14. Students attending the career fair

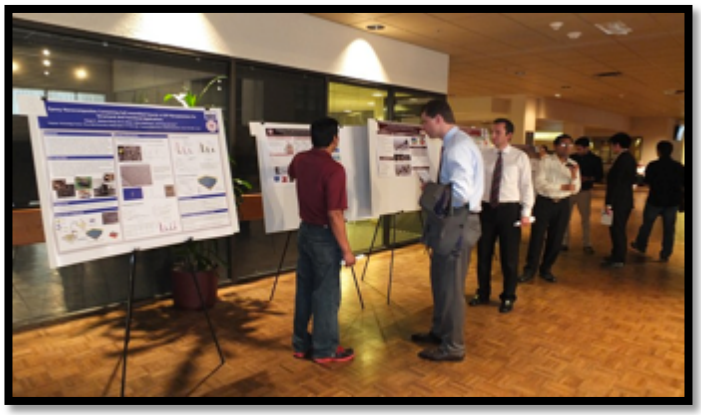

Figure 15. Students presenting their research at the poster competition

Professors Aaron Ames, Tim Jacobs, Eric Petersen, Devesh Ranjan and David Staack, in the Department of Mechanical Engineering, gave the students individual lab tours, and demonstrations of the research being conducted in their labs. These lab tours gave attendees a taste of the ground breaking research taking place at Texas A&M. In collaboration with the Texas A&M graduate organization, MEGSO, a poster competition for Texas A&M Mechanical graduate students was conducted during the career fair, showcasing their research. Prizes were given to the top 4 posters.

Figure 16. Various lab tours available to convention attendees

In the evening all members enjoyed a banquet dinner at the MSC Ballroom, sponsored by Halliburton, with a keynote speech by Tim Hunter (Technology Manager at Halliburton). Scholarship awards, Outstanding Chapter awards, and Outstanding Report awards were presented prior to the keynote speech.

The students continued to enjoy a Saturday Night Social Event at the Fox and Hound Bar and Grill in College Station.

The following morning, the event began with breakfast, and a report from Dr. Alex Moutsoglou, National Secretary and Treasurer of Pi Tau Sigma. The event was a grand success, which resulted in several fruitful interactions for the Pi Tau Sigma members with peers, educators, and industrial representatives.

Figure 17. National Pi Tau Sigma board members and Texas A&M representatives

For more information, please see our website.

http://pitausigma.tamu.edu