PI TAU SIGMA ANNUAL CHAPTER REPORT

2011-2012

Texas Kappa

A. Initiations

Selection and Recruitment Process

To be eligible for membership in the Texas Kappa chapter of Pi Tau Sigma, Mechanical Engineering students at The University of Texas at Austin must have completed 60 or more credit hours for a bachelor's degree in Mechanical Engineering, while maintaining an overall GPA of at least 3.5 on a 4.0 scale. At the start of each semester, the PTS faculty advisor works with the M.E. department to identify those students from this group who are also in the top 25% of the junior class or the top 35% of the senior class as defined in the Pi Tau Sigma Constitution. Then the faculty advisor and current PTS officers hand-deliver invitation letters from the department to the prospective members, and an invitation email written by the current president is also sent to the candidates at the same time. The letter and email explain what Pi Tau Sigma is, describe some of the programs and events the chapter has participated in, and invite the prospective members to information sessions where they can learn more about the organization and the requirements for membership.

Initiation Requirements

In order to get the new initiates accustomed to carrying out the core values of Pi Tau Sigma and to make membership in our chapter meaningful, our chapter calls for the candidates to meet several requirements for initiation. A points system is in place to ensure candidates get involved in both social and service events. Candidates must have 10 points overall by the time of initiation. A maximum of 5 points must be earned by participating in social events, and a minimum of 5 points must be earned by participating in service events. Additional requirements for initiation include attending all general meetings, submitting a resume to the recording secretary, paying membership dues by the 2nd general meeting, participating in ME Peer Advising, passing a "PTS Constitution Quiz," obtaining signatures from all officers, membership candidates, and the faculty advisor, and attending initiation.

Initiation Ceremony

Our chapter's initiation ceremony typically occurs 2-3 weeks before the end of each semester. For the 2011-2012 year, initiations were held on November 15, 2011 and April 19, 2012. We initiated 4 and 18 new members on these dates, respectively. We consider initiation to be a formal affair, and all in attendance are required to wear business formal attire. Our long standing tradition has been to conduct the initiation ceremony on the roof of our Mechanical Engineering building. Prior to going to the roof, our initiates each semester were given a tour of the mechanical engineering building. Then, the initiation ceremony was conducted following the guidelines as set forth in the rituals of Pi Tau Sigma. Once the initiation was completed, each pledge and officer signed their name in our Initiation Record Book that contains names from each pledge class and officer team since our chapter's charter year, 1931. To celebrate all the

new initiates each semester, a banquet was held in a true Texas fashion at the famous Salt Lick BBQ restaurant in Driftwood, TX.

B. Chapter Activities

Fundraising

Each year our chapter raises money through several programs. Our most common fundraising event is PTS Lunch on the Lawn, when we serve lunch to engineering students of all majors out on the lawn between the engineering buildings. We sell pizza, chips, sodas, and sometimes hamburgers and hot dogs, all at low cost. Labor from PTS members and candidates is procured on a volunteer basis, and therefore the lunches count as a service event for candidates to earn their required points.

This spring we doubled the number of lunches we hosted to four, which significantly increased our success in raising funds. We also served lunch to kids all across the country who attended the annual Explore UT day, an event where campus is open to visitors who want to learn more about the university and all the different programs it offers. We also raised funds by selling coffee from the PTS office, a program continued since its inception in spring 2011. The combined fundraising efforts raised over $3500 this year, which is our most successful effort on record.

Service

This year's service events included a continuation of the longstanding traditional Texas Kappa service events, as well as initiation of a few new ones. Our service events included our usual ME Peer Advising, Introduce a Girl to Engineering Day, Explore UT, the Austin Marathon, a Mile Triple Crown winter meet, the Zilker Park Garden Festival, and the Austin 10/20 race.

The first three of the service events listed above were on-campus programs. ME Peer Advising is one of our chapter's signature service during registration week events where we provide suggestions to the ME underclassmen on scheduling, classes, and professors. Introduce a Girl to Engineering Day entailed providing labor to the on-campus day-long program for introducing young girls to the world of science and engineering. At ExploreUT, in addition to the lunch fundraiser we ran, we also set up a booth to show the visiting students what it means to be a Mechanical Engineer and some of the things they could do if they choose to study Mechanical Engineering; we set up an exhibit of our 13-piece miniature steam engine collection, and ran the engines using compressed air while demonstrating each engine's principles of operation to the audience.

As members of Pi Tau Sigma, we also held volunteering within the community as a high priority. Volunteering for the Austin Marathon involved helping set up and tear down all the equipment, scaffolding, and banners for the finish line area. The Mile Triple Crown winter meet was an amateur track meet held at a local high school for adults and children alike to promote health and well being through running and track competitions. The Zilker Park Garden Festival was a city program to celebrate home gardening and green efforts in Austin; we volunteered for taking tickets and passing out brochures as visitors entered the festival. The Austin 10/20 race is a 10-mile race for Austin runners, with 20 local bands set up along the race path to make the race a

fun and unique Austin experience. We helped set up equipment for the race, and handed out flyers and water to visitors and runners.

Departmental Activities

One of Pi Tau Sigma's core duties is to encourage departmental activities. This year our departmental activities included maintaining the department's miniature steam engine collection, conducting ME faculty interviews, developing equations sheets for the undergraduate Thermodynamics course, and constructing a Job Interview Question Database.

Last spring one of our alumni members, Don Foster (BSME 1948), donated his collection of hand built miniature gas and steam engines to our chapter. Since then we have been entrusted by the ME department with the responsibility of cleaning and maintaining the engines so we could proudly display them in the ME building and at outreach events. A 1916 Case Steam Tractor, a Corliss Steam Engine, and a Hit and Miss gasoline engine are just a few examples of the 13 different engines. These working engines are a sight to see and, as previously mentioned, they were a favorite during Explore UT. For both the fall and spring, our engines officer worked on creating documentation for each engine explaining how the engine worked and the history of its design. In the spring, the department even charged a Senior Design Class project group (consisting of PTS members) with the task of creating a pneumatic operating system and glass display case to make the engines exhibit an interactive centerpiece of the foyer of the Mechanical Engineering building.

The ME faculty interviews entailed gathering a group of PTS members together to meet with some of the job candidates the ME department was considering hiring in the spring. The department invited us to have lunch with each of candidates, ask them about their interests and areas of research, and give feedback to the department about whether or not we liked the candidate and would enjoy having him or her as a professor. These interviews were a lot of fun and greatly helped the department gather some student input to help them make their hiring decisions.

The Thermodynamics equations sheets were also developed this spring as a way to help students in the department taking Thermodynamics understand the equations of engine cycles and energy transfer that are fundamental to Mechanical Engineering. The sheets were created and refined during the spring semester, and they will be distributed in Thermo classes for the first time this fall. In addition to the equations and engine cycle graphs of Thermodynamics, the equation sheets also have a section defining what Pi Tau Sigma is and the class rank requirements for eligibility. Thermodynamics is one of the last courses students take in their degree plan before they become eligible to join PTS.

The Interview Question Database was started in the fall as a way to help students in the ME department prepare for on-campus job interviews. The database currently consists of 117 technical and behavioral engineering job interview questions that have been asked to engineering students in the past during UT on-campus interviews. The data on each question includes the company conducting the interview, the semester in which the interview was held, the type of position (internship or full-time), the title of the position (e.g. Facilities Engineer), the interview question, and, for technical questions, the most correct answer. Corporations come to campus

two times per year, once per semester, and our plan is to have PTS members add questions to the database each semester right after they have their interviews.

Events with Other Engineering Societies

This year we participated in several events with other engineering societies. These programs included various inter-organizational competitions, our Third Annual Engineering Honors BBQ, and our newest signature event, the First Annual "Carnot Classic" Engineering Golf Tournament.

The inter-organizational competitions over the fall and spring included Ultimate Frisbee vs. TBP, Miniature Golf on several occasions vs. ASME and vs. TBP, and capture the flag vs. TPB. We also partnered up with TBP during National Engineers Week (EWEEK) for multiple events, including judging a lip-synching contest and playing Engineer Pong, in which our chapter placed first among all other engineering student organizations.

The Engineering Honors BBQ, which we held for the third consecutive year this spring, was an all-day event we held at a local city park to get to know members of engineering honor societies such as TBP, OXE, etc. from all engineering disciplines. This event was sponsored by Fluor, an engineering company that wanted to get involved with our PTS chapter and get their name on one of our events. Admission was free for all in attendance, PTS members and non-members alike. We barbecued ribs, sausage, and brisket, grilled hot dogs and hamburgers, and served meat, sides and drinks to all in attendance. We also had lawn games and volleyball for fun after the meal. We had a great turnout of PTS members and members of other organizations, and the event was quite a success.

Perhaps our biggest event this year, and certainly our most unique, was the "Carnot Classic" Engineering Golf Tournament. The tournament was held on April 28th at a local golf course in Austin, and served as a fundraiser for our organization and for all other student organizations in attendance. The program provided a way for engineering students and employers to get together for fun, networking, and for bringing attention to their organizations. Engineering companies donated funds for several aspects of the event, including hole sponsorships, team sponsorships, tournament title sponsorships, etc. The net proceeds from the entry fees were divided among all engineering student organizations in attendance, directly proportional to the number of students present from each society. Corporate representatives and engineering professors were in attendance, some paired with students for extra socializing. We had prizes for each player on the overall first place team, a trophy for the student organization team with the best score among the other student teams, prizes for the longest drive and the closest shot to the pin, door prizes, and raffle prizes. We provided lunch to our non-student golfers, and had free drinks and refills for everyone during the whole event. We had a great turnout of golfers, and everyone had a ton of fun. One of the corporate sponsors' team, with two civil engineering students on it, won first place overall, and our PTS chapter won first place team. We hope to continue this event for years to come, recognizing the winning student organization each year and giving them a year's bragging rights in the engineering school. We also want to eventually make the Carnot Classic our biggest fundraising event and networking opportunity for the students.

Social Events

Our chapter believes strongly in building relationships between our members and in the importance of team cohesion. To foster these ideals, we engaged in happy hour signature parties, outings to different local attractions, football watching parties, officer socials, and basketball games. The happy hours each semester were held at local restaurants for the membership candidates to get their signatures for initiation and to have fun together with the members of their candidate class. We had an outing to Jumpoline, a local family attraction with an entire building full of trampolines and trampoline games such as dodgeball and basketball. The game watching parties were get-togethers where members brought different food items and watched the football game together when the Longhorns were on the road.

The officer socials were meant as a way for the officers to have some fun together and get to know each other outside of the duties of being a PTS officer. Our first officer social outing was planned at a local comedy club called Esther's Follies, but the show sold out too soon for everyone to get a ticket and so we went out to a local Tex-Mex restaurant instead. We also attended a UT basketball game as an officer social and teambuilding event. These were great fun and we hope to continue these socials in the future to really get the officer team working together seamlessly.

General Meetings

The Texas Kappa chapter held chapter meetings every other week each semester. As mentioned previously, membership candidates were required to attend all meetings unless they had a hard conflict such as a class or an exam. We held five general meetings in the fall and six in the spring. Each general meeting included popular or classic music playing at the beginning while people entered, a presentation by the chapter President on chapter business and upcoming events, a free meal for PTS members and candidates sponsored by a corporate speaker, a message from the corporate speaker, and a chance for students to network with the corporate reps and ask them questions about their presentation or about employment opportunities. In the fall, the companies that sponsored meetings included Nexen Petroleum, General Motors, Oxy, Schlumberger, and National Instruments. In the spring, the sponsors were Det Norske Veritas, Fluor, ExxonMobil, Lockheed Martin, Wood Group, and Capital One. The General Motors meeting was especially fun, as the speakers showed off the new ZR1 Corvette in a video of a performance driver racing the vehicle on a cross-country track and reaching speeds above 180 MPH on the straight-aways. All of these meetings went very smoothly, and the music especially made the meetings a fun place to hang out.

National Convention

This year, we had a very enjoyable and productive experience at PTS National Convention in San Jose, CA. The convention attendees from our chapter were President Will Moore, Service Chair and Historian Steven Kanik, and Social Chair Sean Knight. We all had a great time and learned a lot about more programs and methods our chapter could adopt, as well as what it takes to run a convention.

Scholarships

This spring, for the first time, our chapter started a scholarship program for outstanding members of our society. We believe that scholarships are a great way to recognize members and

candidates who have shown a lot of dedication and effort to our society. Therefore, we set aside $500 for each of two scholarships, one for Most Outstanding Membership Candidate and one for Most Outstanding Active Member. We awarded scholarships at our celebration dinner for new members at Salt Lick BBQ at the end of the semester. The selection criteria for these was heavily weighted on points (the number of social events attended and service hours recorded by each candidate/member), but financial need, leadership, and citizenship were also considered. The officer group was exempt from winning these awards, as the purpose of these was to reward hard work and encourage participation from non-officer active members.

Society Organization

Because of the large increase in chapter activity and the addition of a number of new programs run by our chapter in the last two years, our officer group has had to adjust by adding new officer positions. The traditional officer positions have been President, Vice President, Treasurer, Recording Secretary, Corresponding Secretary, two Service Chairs, two Social Chairs, Engines Officer, Student Engineering Council (SEC) Representative, Webmaster, and Historian. This spring we added four new positions to help with our new programs, including Special Events Coordinator, Actives Chair, Parliamentarian, and Fundraising Director. Our elections each semester are held immediately following the initiation ceremony, so that only fully-initiated PTS members will be elected to officer positions. Each candidate for a position gives a short speech on why they believe they can serve well in the position, followed by questions from the other members. Then the nominees leave the room while the other members cast their votes on written ballots. The officer group is run by the President, who runs the biweekly general meetings and officer meetings on off-weeks. The Vice President assists the President and keeps track of the progress of membership candidates. The Treasurer creates a budget for the year and handles reimbursements for members. The Recording Secretary is in charge of keeping track of attendance at general meetings and other events, up-keeping our email account, and sending out weekly emails. The Corresponding Secretary is responsible for finding speakers for general meetings. Our Webmaster updates our website and creates any event sign-ups that we need, and our Historian documents events by taking pictures. Our Service Chairs, Social Chairs, and Fundraising Director are in charge of planning events that accomplish the objectives of their respective positions. The Special Events Coordinator is in charge of planning the annual Carnot Classic Engineering Golf Tournament, advertising it to companies and student organizations, and procuring sponsorships. The Actives Chair creates new incentives for initiated non-officer members to stay involved, and organizes events for active members only. The Parliamentarian is in charge of learning Robert's Rules and facilitating their use during chapter meetings.

C. Other

Last year in Texas Kappa went down as one of the most active in recent history. This year built on last year's success and was quite likely the most successful year in the 80-year history of our chapter. Not too long ago we were an underperforming society with very few events. Now, we have doubled the number events that we host and have greatly increased interest and membership in our chapter. We have built a strong house on a strong foundation, and now hope to continue building our chapter's prominence in upholding the Pi Tau Sigma core values of integrity, leadership, and service for years to come.

Websites

For more information about our chapter, please visit our website: http://www.me.utexas.edu/~pitausigma/
For additional information on some of the events we participated in, please see the following websites:
Austin Marathon: http://youraustinmarathon.com/ Austin 10/20 Race: http://www.austin1020.com/
Zilker Garden Festival: http://www.zilkergarden.org/about/events/ZGF2012/zgf.html
"Carnot Classic" Tournament: http://ptsut.com/golf/ Explore UT: http://www.utexas.edu/events/exploreut/
Introduce a Girl to Engineering Day: http://www.engr.utexas.edu/wep/k12/girlday Jumpoline: http://jumpolinepark.com/

Pictures

Selling Pizza on the Engineering Lawn

Volunteering for the Mile Triple Crown Meet

Helping out at the Austin Marathon

The Beginning of Introduce a Girl to Engr. Day

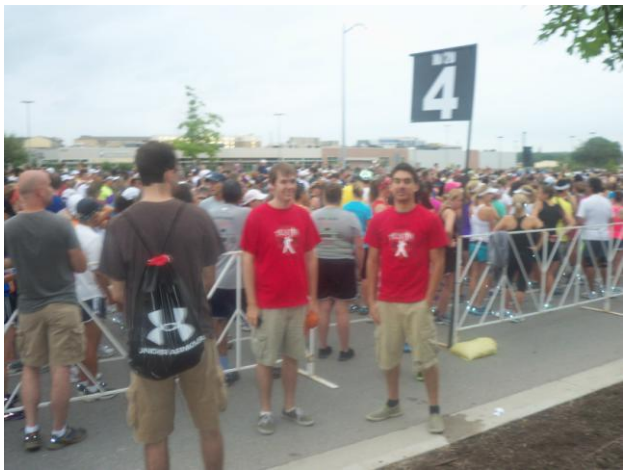
Exposing Girls to Science and Engineering

Our Trip to National Convention

Some of the Miniature Steam Engines our Chapter Displayed at Explore UT

Barbecuing Ribs at the Honors BBQ

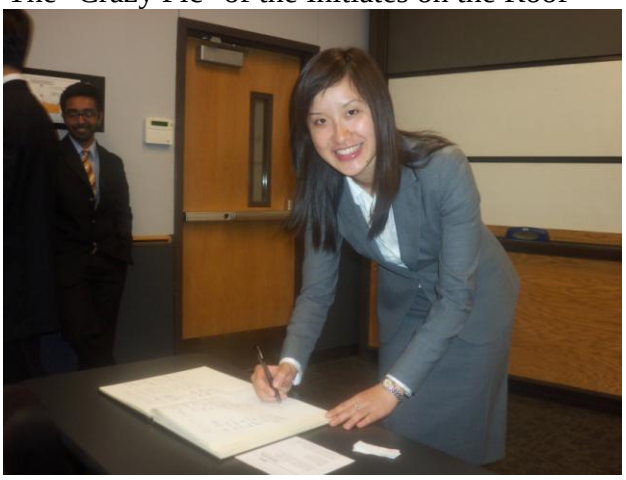
Serving Food to Some of the Honors Students



Hanging Out at the Austin 10/20 Race

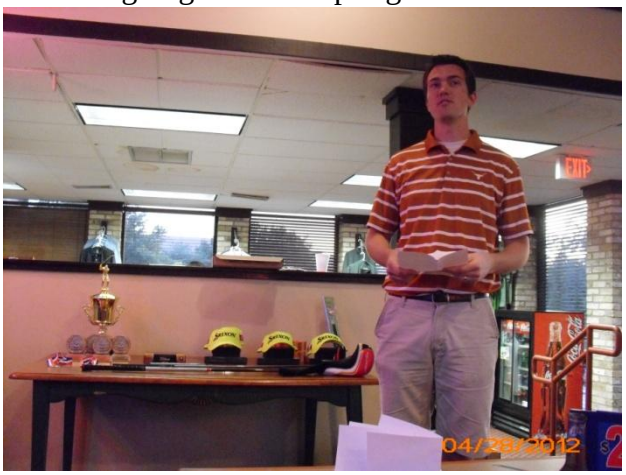
The "Crazy Pic" of the Initiates on the Roof

Officers and Initiates after the Spring Ceremony



Book Signing after the Spring Initiation

The New Officer Group Right After Elections



The Carnot Classic Awards Presentation

Tournament Participants Receiving Prizes

The Winning Student Team (PTS) and President

The Texas Kappa officers for the 2011-2012 academic year were:

Fall 2011:

President	Sally McMenamin
Vice President	Matt Wright
Treasurer	Will Moore
Recording Secretary	Erin Lenth
Corresponding Secretary	Stephanie Matyas
Service Chairs	Mohammad Siam & Siddharth Shah
Social Chairs	Alex Breckel & Mara Sweeney
Engines Officer	Tommy Shaw
Webmaster	David Forinash
Historian	Dan Witcher

Spring 2012:

President	Will Moore
Vice President	Mara Sweeney
Treasurer	Matt Wright
Recording Secretary	Mohammad Siam
Corresponding Secretary	Susan Conover
Service Chairs	Steven Kanik & Mohammad Siam
Social Chair	Sean Knight & Jackie Williamson
Engines Officer	Tommy Shaw
SEC Representative	Adam Petri
Webmaster	David Forinash
Historian	Stevan Kanik

Report Written By: Will Moore