Pi Tau Sigma Annual Report
2015-2016
Purdue Beta

Initiations

Undergraduates entering their fourth semester at the university, or second semester within the school of mechanical engineering with a GPA of 3.6 or higher are invited to pledge. This GPA requirement is decreased one tenth of a point for every semester the potential member has been in the school of mechanical engineering. A minimum GPA of 3.3 is required for eligibility for students with senior-level status.

The pledge process begins with invitations being sent to those eligible students to attend the pledge callout, which traditionally occurs within the first month of every semester. The Vice President of Pledges presents to those eligible the perks of membership, requirements for membership, the necessities for completion of the pledge process, and briefly describes the basics of the Purdue Beta chapter. Near the conclusion of the callout the current executive board is introduced and the floor is opened for any questions potential pledges may have concerning the organization. At the conclusion of the callout attendance is taken of those interested in undergoing the pledge process.

Once those interested in joining the organization have been identified they are required to attend weekly pledge meetings held throughout the semester. The objectives of these meetings include pledge bonding, education regarding Pi Tau Sigma, and identification of pledge responsibilities. These responsibilities include, but are not limited to, organization of a pledge service event, establishment of leadership roles within the pledge class, aid in operation of a chapter-run lounge, donation of acceptable tests to a test bank, and familiarization with the chapter officers, chair, and active members. The pledge leadership roles include positions of Service Chair, Treasurer, Test Files Chair, and Social Chair. These positions are intended to mimic the corresponding active positions in the organization and aid in identifying involved individuals.

One of these developmental positions in particular is viewed as a recruitment tool for leadership within the active division of the chapter, this being the pledge service chair. Traditionally this position allows a pledge to organize and direct the pledge service project with the help of the VP Pledges and other active members. During both the Fall 2015 and Spring 2016 semesters this pledge has organized a PTS sponsored after school carnival at the local Boys and Girls Club. This event is explained in more detail below. However, it was decided that pledges should have access to active service events as well as the carnival, so many of the service events throughout the semester were attended both pledging and active members. The intention of this initiative was to induce interaction between pledges and active members, with the ultimate goal of building both social and professional relationships.

Prior to pledge initiation, pledges are required to interview at least five officers or chairs and complete signature sheets that include every officer, chair, pledge, and a defined number of active members and professors. The pledge process culminates in a pledge exam, testing the potential members in areas such as Pi Tau Sigma facts, both on the national and chapter levels, general engineering knowledge, and familiarization with the name sheets. These exams are then graded by the VP pledges, who presents to the

executive board a list of those members he or she has seen fit to join the organization based upon test performance and attendance based criteria.

Those pledges that have proven their dedication to the organization by performing at a high level in all criteria for active membership are initiated into the organization during the final week of the academic year. Initiation takes place in front of the entire executive board who describe the basic principles of Pi Tau Sigma to the newly inducted pledge class. It is at this point in time that the pledge class signs their names into the chapter membership log book and pledges make the transition to active members. The initiation is concluded and all active members are assembled at an end of year banquet to discuss the semester's activities and select officers for the upcoming semester

Chapter Activities

PTS Tutors: Another unique opportunity that is offered to active members of the Purdue chapter is to tutor struggling students in the ME student body. A Tutoring Chair is tasked with managing requests submitted through the chapter website and matching students with active member tutors. Active members are selected to tutor students based upon their performance in the respective classes. Throughout the past semester the number of tutors within the organization has been around twenty students with many of those tutoring in multiple classes.

PTS Sponsored Review Sessions: The chapter additionally sponsors review sessions for introductory mechanical engineering classes such as thermodynamics, statics, and dynamics. Many of the chapter's members are teaching assistants or graders for these classes and thus are well qualified to hold these review sessions. The materials covered in these sessions are past exams that our members completed when they themselves took these same classes in past semesters. They review sessions been very successful as a form of increasing awareness of our organization, its presence in the ME community, and providing a pro bono service for younger students. We tend to hold one session for each of the three mid-term exams in each of these classes, which can get attendance upwards of 60 students. The test reviewed is made available to any student who would like to have an additional copy for practice.

ME Forum: This is arguably one of the most beneficial events that this chapter organizes when it comes to improving the greater ME community. This event traditionally occurs during the final academic week of every semester and consists of an open forum between students and faculty with discussion mediated by the PTS president and recorded by the secretary. For students, it is an opportunity to have a large number of faculty on hand that can collectively address their questions or concerns. This event is beneficial for the faculty because it allows them to understand what students would like changed. The secretary's notes are distributed to the entire ME community at the conclusion of the forum so those not in attendance can familiarize themselves with relevant issues. Talking points are gathered by implementing school wide polls in the week prior to the event. Examples of issues raised in the past include but are not limited to course sequencing and organization of the ME plan of study, class scheduling, academic honesty policies, facility access, implementation of online classes, out of classroom educational resources

(use of blogs, lectures uploaded to the internet, and chat rooms for virtual TA office hours), and many more. Faculty members present include the department head, the head of all the computer labs, the head of undergrad studies within course coordinators, any additional professors, and ME facilities employees are always appreciated. The chapter provides refreshments to encourage attendance.

Mechanical Engineering Social: The ME social is traditionally a biannual event, occurring during the final week of every semester. The event allows students a break from studying and an opportunity to unwind and socialize with fellow ME's and faculty members. This event takes place at a local bar and the chapter provides food to those in attendance. Additionally commemorative pint glasses are distributed to the first hundred in attendance. PTS members invite as many professors as possible to this event, with attendance this year being between eight and ten in the fall and spring semesters. A pub style trivia game is the main event while at the bar, with questions being generated either by the pledge class or the Social Chair. This event is traditionally one of the largest the chapter organizes, with attendance between 150 and 200 people during the dead week socials. In recent years, two additional mid-semester socials were organized in the spring and fall due to the events popularity. These were more unofficial socials that did not include the pint glass distribution but still allowed for an opportunity to unwind with fellow students.

Lounge Sales: One way in which the chapter is able to provide a service to the ME community is by sponsoring and organizing a lounge in the mechanical engineering building. Active members and pledges sell snacks and refreshments purchased with the chapter's funds at reasonable costs to the mechanical engineering student body, faculty, and staff. The act of manning lounge hours is critical in the pledge process and remaining an active member of the chapter. Recently, the chapter allocated funds to the purchase of a laptop for the lounge that is used to track inventories, sales, time of sales, and relative popularity of items. Knowledge of these parameters allow for the optimization of hours worked and inventory stocked with respect to time throughout the semester. The lounge is the responsibility of the Lounge Chair who in turn reports to the Vice President of Sales. Our goal with this endeavor is to provide a service more than aiming for profits, so we sell all items at the lowest prices we can offer without taking losses.

Test File Sales: In the past another cornerstone operation has been the chapter test sales office. Our active members are tasked with collecting and maintaining a test bank for a number of past exams given in core mechanical engineering courses. The Test Files Chair, who is responsible for ensuring adequate supplies of exams every week of the semester, directs this operation. Like the Lounge Chair this position reports to the Vice President of Sales. Additionally, similar to the lounge a desktop computer is used for tracking exam sales, contains a calendar of all exams in the ME department, and also contains many key PTS related documents. The exams in the test bank consist of tests that active members have taken and received a 90% or above on and in most cases have edited the completed test, correcting any mistakes. These corrected exams are then photocopied and sold to the ME community at the reasonable price of $0.75 per exam.

Industry Information Sessions: During the fall semester the chapter hosted a few special speakers at our actives meetings. These speakers included company representatives from ExxonMobil, Schlumberger, Honeywell Aerospace, and Anheuser-Busch looking specifically to recruit Pi Tau members. These events are relatively simple and usually require the chapter to simply reserve a location and publicize the event for the company, which in many cases supplies refreshments and promotional items. The presence of these speakers has been part of an effort to increase the benefits of being a Pi Tau member at Purdue. These information sessions are in addition to the other aforementioned events with Kimberly Clark, Emerson, and General Electric. Ultimately the chapter would like to serve as an intermediary, connecting the highest achieving mechanical engineers at Purdue with the most highly sought after positions in industry.

Industry Day in the Lounge: The Industry Days in the Lounge were an industry-sponsored event with an emphasis on recruitment cosponsored and organized by the chapter. This event consisted of a few representatives from a given industry, who are both knowledgeable about the recruitment process at Purdue. The representatives provide funding and supplies for the day's activities. The representatives offered advice on successful interviewing, creating attractive resumes, and general advice valuable to any ME undergrad. This event provided complimentary snacks to students within the ME community at Purdue. Between two and three PTS members volunteered throughout the morning to aid in setup and distribution of snacks. Some of the industries that came for an industry day in our lounge included General Electric, Caterpillar, and ExxonMobil.

Design Creativity Seminar Fall 2015: The chapter holds a daylong event at an off campus retreat center in the fall of every year with Schlumberger called the Design Creativity Seminar. This event is open first come first serve to anywhere between 20 to 25 mechanical engineering students. This is a very unique event in which a professor emeritus within the school of mechanical engineering returns with any number of Schlumberger representatives, historically between three and five. The main activity for the daylong event is a design project. The goal of this project is to attempt to inspire creativity and emphasize the notion that in many real world engineering problems there are usually many "correct" solutions and to arrive at the best solution nontraditional thought processes may be required. Schlumberger will cover all costs incurred such as reserving the retreat center, meals for breakfast, lunch, and dinner, and the purchase of creativity related supplies.

Annual Alumni Newsletter: Purdue Beta creates an annual newsletter, which we send to all of our alumni. The purpose of this publication is simply to update alumni on the goings on of the chapter, what the students are doing, where they are going, and hopefully encourage interaction and communication between current members and alumni. The reaction to this publication, distributed using an email mailing list was greater than expected, with many alumni replying to simply check in with current officers and chairs that they had once held. Additionally the organization benefits as this newsletter acts as a fundraising venture.

Compilation of Senior Composite: A small but critical service that our chapter provides for the ME community is the compilation of the senior composite photo. Every semester a Pi Tau member, the Composite Chair, works with various staff members to organize a timetable for graduating seniors to have their photos taken. These photos are then sent to the Composite Chair where they are postprocessed and imported into the final composite template. In the fall semester of this past academic year this process was streamlined with the creation of a program for automatically cropping images and importing them into the composite.

End of Semester Banquet: At the end of every semester the chapter holds a banquet for both the incoming new members and the outgoing graduating seniors. The chapter caters food from a local dining favorite. This is perhaps the biggest internal events and is a great opportunity to take a break from studying for finals and socialize with other members. This is also the event where the next generation of officers is elected in an effort to smooth transitions between semesters. The attendance is normally around fifty people.

Pi Tau Sigma Intramural Teams: The fall 2015 semester saw the recreation of the Pi Tau Sigma intramural teams. Intramural coed dodgeball and sand volleyball were selected as that semester's sports. This activity actually proved to be valuable to the organization, strengthening relationships among those participating and helping to get members more involved that may not have necessarily taken that first step on their own. The teams proved to be unexpectedly good at dodgeball and volleyball and continued to play outside of the Purdue sponsored events with each other on weekends and after class. Last year there were issues in gaining female support of the intramural sports. This year there were a gratuitous amount of females to allow the team to join the coed league.

Pi Tau Sigma Social Events: There was a focus on creating a more social atmosphere for Pi Tau members the past few years. The officers believed if there was a fun social atmosphere, more people would want to be involved. This proved to be true through the semester. Bubble Soccer, where people climb into air filled soft plastic bubbles and play soccer, turned to a huge success last year and was repeated in the spring semester this year. This event brought out many students not involved in Pi Tau Sigma to spend time with us. About thirty students showed up for this event. Other events such as card tournaments, movie nights, cookouts, and ice-skating events were held through the semester. Several of these events were collaborative between Pi Tau Sigma and the other ME organizations to help bring us all together. The social atmosphere helped the organization grow as a chapter as well as grow with our peers throughout ME.

Officer, Active, and Pledge Meetings: In addition to the aforementioned events biweekly officer and member meetings are held. Officer meetings are structured to ensure that all activities and events are being completed and that all officers are on task. The President runs this meeting and sees to it that the organization is running effectively as a whole. The active member meetings are held on off weeks from the officers meeting and the VP of Actives or President runs them. The purpose of these meetings is to convey important information about what is happening when and to gather volunteers for certain events as well as an opportunity for our members to get to know one another. Pledge meetings are

held on the same days as the officer meetings and are designed to simulate active membership. These meetings are run by the VP of Pledges who is often joined by the remainder of the executive board at the conclusion of the officers meetings. A push to create a more social atmosphere for the pledge meetings was made to encourage more people to come and be involved and continue to grow their new friendships. Attendance is taken at these meetings and there are a minimum number of unexcused absences each member has to maintain membership in the chapter. This semester, a new practice was put into place to get the pledges to be more familiar with the people who held leadership roles within the organization. Each officer and chair member was asked by the VP of pledges to sign up to attend one or more pledge meetings. By having the officers show up to these meetings, the pledges learned more about the various roles in the organization, and were able to get signatures and interviews much more easily.

Solberg Teaching Award: One of the activities the chapter conducts on an annual basis is the polling of the student body to reward special members of the faculty with a teaching award. Pi Tau members are responsible for conducting the balloting in each upper level ME course and gathering results. The responsibility of organizing this activity traditionally falls on the VP of Actives. Only upper level mechanical engineers are polled to ensure that faculty teaching at all levels in the curriculum are considered. This occurs once a year and would not happen without the chapters help.

Service Events

Further motivated by the chapter's success at the National Convention, specifically with respect to the service events it participates in, organizes, and publicizes. The service events that the chapter contributes to can fall into one of two categories; events solely organized by the chapter and those that the chapter volunteers to participate in but does not necessarily run. As one might expect both of these types of events require different levels of involvement with the chapter. Listed below are the various service events that the chapter has participated in during the 2015-2016 academic year.

Winterization Fall 2015 / BoilerBlast Spring 2016: This is an annual event that is always looking for volunteers and an opportunity for the active members to truly make a difference. Winterization and BoilerBlast takes place in the late fall and spring of every year and is an opportunity for Purdue students and organizations to volunteer in the community, fulfilling the requests of local residents for a variety of domestic tasks such as moving, cleaning, yard work, etc. Officers oversee teams of active members to a location and fulfill whatever task the client has requested. This event occurs on one weekend day late in the semester with jobs varying in length from three to nearly eight hours.

Boys and Girls Club Carnival: A long-standing tradition within the Purdue chapter, the Carnival sponsored by PTS at the Lafayette Boys and Girls Club is perhaps one of the most popular service events with respect to both chapter members and the children at the club. The event is solely sponsored and organized by the chapter, featuring a bounce house, inflatable obstacle course (always a big hit), a number of small games, basketball, and an arts and crafts station. Every volunteer runs one of the stations or games and

distributes tickets to the children who can then redeem the tickets for prizes. This event has traditionally been the pledge service event but due to its popularity and the initiative the chapter has undergone to increase service activities it has been opened up to both actives and pledges.

Elementary Outreach: This year the chapter put forth a significant amount of effort to revitalize a cornerstone service event, Elementary Outreach. An active member volunteered as Elementary Outreach Chair who was in charge of contacting local elementary school teachers at Happy Hollow Elementary and purchasing the necessary materials to orchestrate the event. This event typically consists of between five and seven active members going to the school and building small engineering projects such as bridges and paper-plate speakers. This project introduces students to some fun project that can inspire the students to find enjoyment in STEM fields. We will continue to try to orchestrate this event as it poses substantial benefit to those students involved.

Boo at the Zoo: The local Lafayette Children's Zoo hosts an event called Boo at the Zoo. This is when the zoo is filled with Halloween/Autumn decorations, games, and attractions. Pi Tau members volunteer for this event and help with the set up as well as running the event. Some students could be assisting providing drinks and snacks for families, running a festive game for kids, or dressing up and acting out children's fairy tales during an interactive train ride that is incorporated in the zoo. This event was a huge success and a great time for everyone involved. Boo at the Zoo is an event that the Beta Chapter plans to continue throughout the coming years.

Natalie's Second Chance Animal Shelter: A new service we provided in recent years was to volunteer at a local animal shelter. Students visited the shelter to help clean the facility and dogs as well as walk the dogs for exercise. This event was very successful and as such we continued on to do the same event again in the spring with similar attendance and will continue to do more in the future.

Other

Chapter Information

	Fall 2015	*Spring 2016*	*Fall 2016*
President	Rachel Berry	Rachel Berry	Santiago Espinosa
Treasurer	Rishab Mardia	Brennon Bastean	Stephen Dissler
VP Actives	Jennifer Boehm	Camilo Schrader	Camilo Schrader
VP Pledges	Santiago Espinosa	Michael Laska	Michael Laska
VP IR	David Capone	David Capone	Leo Kullman
VP Sales	Brennon Bastean	Grant Flesner	Bojun Song
Secretary	Michael Laska	Adam Kremer	Margaret Graham

Chapter Advisor: Dr Stephen Wereley

Contact Information

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