Pi Tau Sigma Annual Chapter Report

2014-2015

Maryland Tau Mu

A. Initiations

Recruitment and Requirements

The Fall 2014 and Spring 2015 inductees underwent the same selection process as previously used at Maryland. The details are as follows: the president receives the contact information of the top 25% by GPA of the junior ME class and top 35% of the senior ME class, where class status is determined by the number of credits earned. The president invites the potential inductees to attend the first general body meeting of that semester, during which the organization, objectives, as well as the requirements for joining the Maryland Tau Mu chapter of Pi Tai Sigma are explained.

The requirements are as follows:

- Obtain a total of 26 signatures: 10 from fellow inductees, 10 from current members or officers, 5 from faculty who are members of PTS, and 1 mandatory signature form Dr. Peter Sandborn, the faculty advisor.
- Obtain a minimum of 10 points by participating in PTS sponsored events over the course of the semester. Each PTS event is pre-assigned a point value, in general 1 point per event. Running events can earn the inductees 1 point per hour worked, and helping out with an event earns extra points as well.
- Pass the Maryland Tau Mu Inductee exam by scoring at least 70%. The exam tests the knowledge of basic engineering terms and problems, PTS history, and Maryland Tau Mu specifics. Extra credit is awarded for witty and clever answers.
- Pay the induction fee of $70.
- Attend all general body meetings as well as the induction ceremony.

Ceremony

At the induction, the president and senior VP sit behind a desk illuminated by three candles with the PTS banner in front of them. Also on display are framed pictures of the PTS crest and key. The current members and officers sit in the room with the front row vacant. The lights are dimmed. The inductees who have fulfilled all the requirements are lined up just outside the room. Each enters the darkened room, approaches the desk, and says his/her full name. Then he/she takes a seat in the front row, facing the desk.

Once all the initiates are seated and the door is closed, and the ceremony begins. The president and senior VP follow the verbal proceedings as detailed in the Pi Tau Sigma Chapter Manual. Once the proceedings are done, one by one the inductees sign their names in the Maryland Tau Mu member registry and learn the secret handshake from the president.

Celebration

The lights are switched back on, the president congratulates the inductees on their induction as members, and the crowd applauds. Food and drinks from Chipotle are served, and new and old members mingle. The stoles are then passed out to graduating seniors, and we continue to relax as the ceremony usually occurs just a few days before exams begin.

In the fall, the ceremony would have officially ended at this point and members are free to leave whenever they want. However, in the spring, there is an award voting and elections are held for every officer position. The Purple Cam Shaft is voted on by all members. The Purple Cam Shaft is meant for a faculty member who is dedicated to the students, helpful, and all around impressive. Elections then follow, and are done quite informally, with the president conducting

the proceedings. Each position is called, the previous holder gives a brief explanation of the duties, perks and challenges of the relevant office, and individuals are nominated by themselves or by anyone else. Nominees then give a short speech about why they are the best candidate for the position and are escorted outside the hall once they have all spoken. The president calls for a vote by a show of hands. The winner is determined and the president exits the hall to congratulate him/her. The process repeats itself until all positions are filled. The ceremony is then concluded.

B. Activities

Meetings

There are monthly meetings held for inductees, members, and officers on Wednesday nights throughout the semester. These meetings are run by the president and about 30 people attend each meeting. This year, the meetings were held in a ME conference room, and the president would write the upcoming events and dates on a white board as shown in Figure 1. The main lead for each event would then give a brief update of how things were moving along, ask for more volunteers, and set up outside meeting times if necessary.

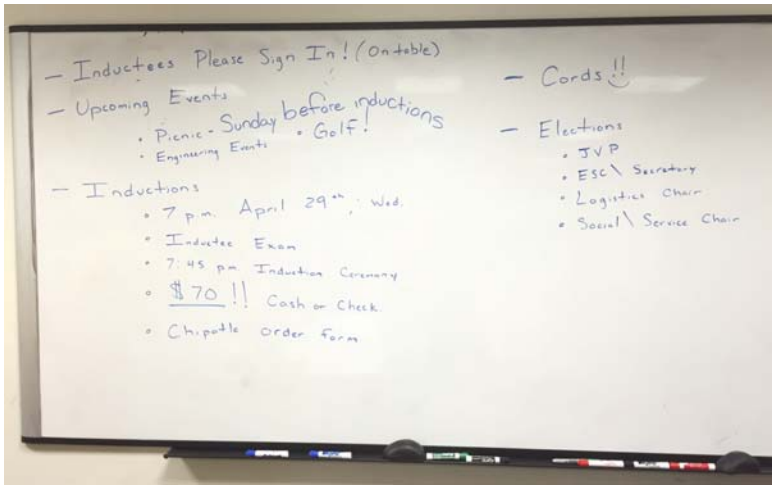

Figure 1. Upcoming Events on Whiteboard

The meetings were also a time for members and inductees to vote on chapter matters. This included voting for dates of activities, Award recipients, and other activities. It also gives people a chance to ask questions and volunteer for activities. This is also the time for the president to check up on the inductees to see how their progress with the requirements is going, and to direct them to other members if they need help. At the end of every meeting, we enjoy some nice hot pizza provided by our Logistics Chair, and we have a chance to take a mid-week break and relax with friends.

Professional Events

GE Aviation Information Session

GE Aviation held an information session with them in the fall. The fall information session was co-hosted with the MD chapter of American Society of Mechanical Engineers, American Institute of Aeronautics and Astronautics, and Sigma Gamma Tau, the national Aerospace honor society. The event included a presentation on the internship experience at GE Aviation by Vivek Kuppusamy, Steve Schrantz, and Sajjad Husain. Approximately 60 students from varying majors and years attended this event, and after the presentation and Q&A session, students were encouraged to enjoy food and to leave their resumes with the recruiters.

Graduate School Workshop

The mechanical engineering department once again sponsored a Graduate School Workshop which is organized and advertised by Pi Tau Sigma. Flyer of the event is in Figure 2. It was chance to learn about the Gradate school application and admission process, explore options and benefits. Also we had different faculty, so it gave students the ability to network. The information session was a success and there were about 40 students from mechanical engineering.

Figure 2. Graduate School Workshop Event Flyer

Systems Engineering Program Graduate School Information Session

Dr. John E. MacCarthy, Director of the Systems Engineering Program at University of Maryland shown in Figure 3. He came and gave a very informative presentation on the graduate school opportunities. He described his research, career path and how he ended up in systems engineering and what systems engineering is. He was able to answer many questions student had about systems engineering. He also provided refreshments for everyone that came to the information session. We had a group of 20 students show up to learn about graduate school in general, and what systems engineering is all about.

Figure 3. Dr. MacCarthy

Service Events

Pinewood Derby Cars and Track with Local Girl Scouts Troop

The Girl Scout pinewood derby project is to introduce STEM fields to girls at an early age. A local low income Girl Scout wanted to help building cars and a track. We were able to use some of the Exxon funding to help finance the project. It was a large project and started in early fall and ran through early spring. We meet with the troop on multiple Fridays to work on the cars and track. The project started with designing, modeling and building individual cars. The finished cars are shown in Figure 4. Then we worked with the Girl Scouts to design and build the track as shown in Figure 5. Then the Girl Scouts were able to invite other troops in the area to host a competition using the track and cars we helped with as shown in Figure 6.

Figure 4. Finished Pinewood Derby Cars

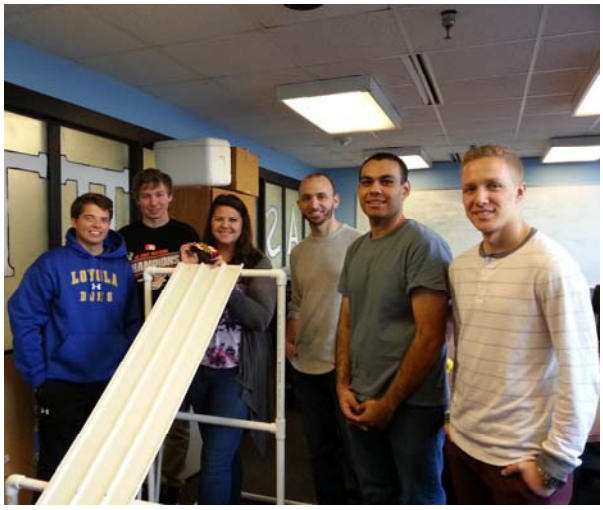

Figure 5. PTS Track Construction Team

Figure 6. Track at Competition

First Annual Mechanical Engineering Scholarship Golf Tournament

This event was organized by Pi Tau Sigma, and the department to help more students pursue an education in the department. All the money raised went to scholarships in the department. The brochure for the event is below and the website is http://www.enme.umd.edu/events/golf-tournament. The brochure and the website banner is shown in Figure 7. The department was able to finance the initial cost of holding the tournament. PTS planned and organized the tournament with help from the Business Office and the External Affairs Office. We were also able to reach out to companies for sponsorship at the tournament as shown in Figure 8. The twelve players that signed up had fun as shown in Figure 9 & 10 and hope to come back next year. We awarded winners for the longest drive, and also 1st, 2nd, 3rd place as shown in Figure 11. With the participation in the tournament from players and sponsors we were able to raise about $4500 directly for scholarships to mechanical engineering students in need.

Figure 7. Website Banner and Golf Brochure

Figure 8. Player Teeing Off on Hole Sponsored by Neilom Foundation

Figure 9. Player about to Tee Off over Water Obstacle

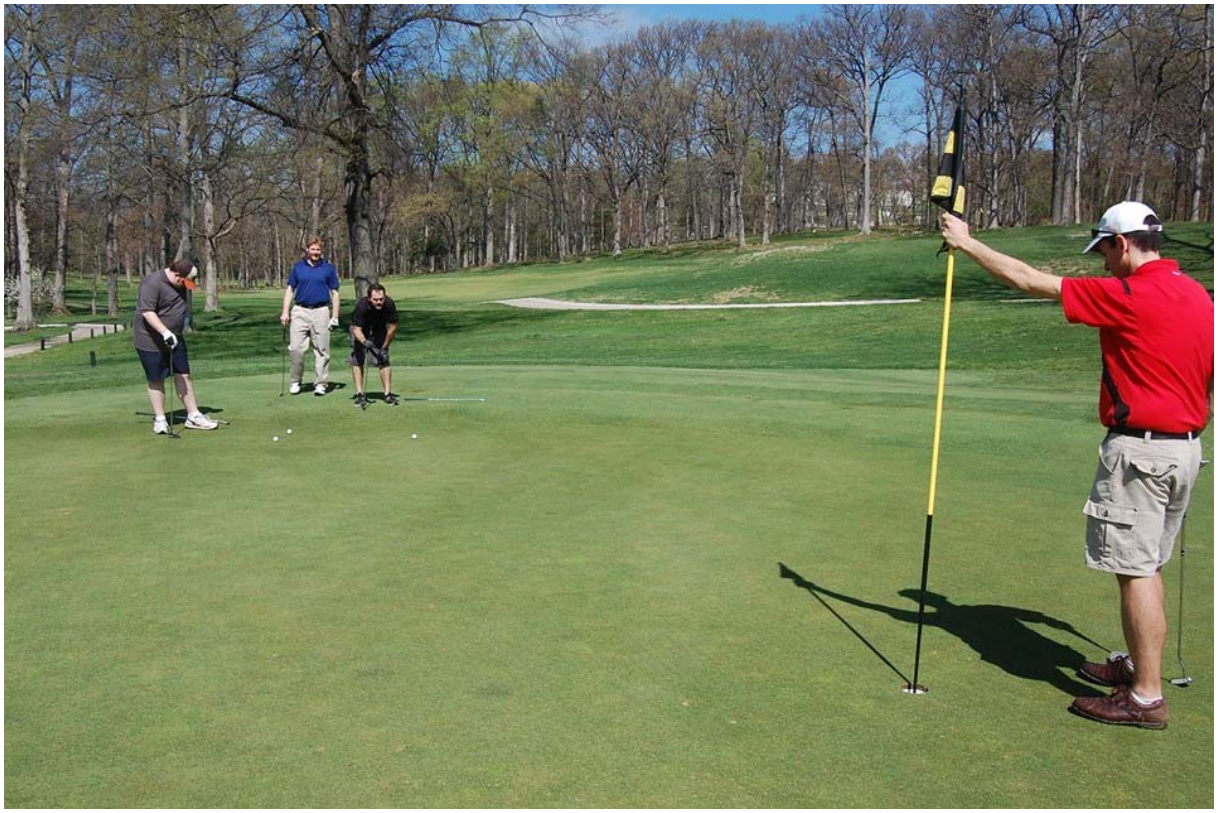

Figure 10. Golfer Lining Up Putt before Attempting It

Figure 11. Ben Amber is awarded Longest Drive Winner by PTS President Parth Kathrotiya

Social Events

Engineering Student Council Dodgeball Tournament

PTS showed its athletic ability at the Engineering Student Council Dodgeball Tournament this year. Our team put up a good fight, but unfortunately we did not make it to the finals. We did, however, enjoy the pizza, and we also had a good time mingling with the other societies that had teams.

Cookout & Picnic

PTS had an end of year picnic and cookout. It was a chance for graduating seniors to hang out and for new members to strength bonds. It was held on a Sunday, so everyone could come out and enjoy. We fired up the coal grill and made food and played games. We had a friendly tournament of cornhole and played catch with a frisbee.

Department & School Events

Career Paths Presentations

At UMD, there is a career paths class that sophomores and juniors take to learn about the career opportunities and activities in mechanical engineering. The student organization leaders give presentations in this class, and this year Pi Tau Sigma was part of this group, which helped recruit some new members who were thinking about accepting our invitation.

ESC Meetings

The Engineering Student Council (ESC) holds monthly meetings that give the societies the opportunity to announce any activities they have coming up, sign up to sell food in the lobby, and to discuss any important matters. These meetings usually provide the leaders from the different societies within the engineering school a chance to collaborate and pair up with others to host events.

Fundraising Events

Food Sales

This year we sold hot dogs, chips, and soda outside the main lobby in the engineering building during lunch time. We ended up raising enough money to offset some of our expenses throughout the year, and more importantly, we get our name out in the school.

Company Sponsorship

We applied for a donation from ExxonMobil and we received $500 to help subsidize cost to build pinewood derby cars and the race track for the girl scouts, aid in holding the tournament and convention costs for the traveling members.

Convention

We had one member attend the wonderful convention at the University of Illinois in Urbana-Champaign for the centennial celebration. We were once again given a few ideas for how to better our Chapter. Since we could only send one member, we decided that the new tradition would be to send a member that would be a part of the executive board the following year. This would allow for the ideas to have direct implementation and have a longer lead up time to put them in place. We were able to send out treasurer for next year, Sarah, who is shown in Figure 12 at the convention. As always, the convention was a great success and we were able to bring valuable ideas back to the chapter.

Figure 12. PTS Tau Mu Member at National Convention

C. Other

Awards

Every spring, the department holds an awards ceremony where students are presented with different awards, and some are in honor of PTS. The PTS Memorial Award is presented to the senior member who has made outstanding contributions to the University. The PTS Outstanding Service Award is presented to the members for outstanding service contributions to the chapter. The PTS Outstanding Sophomore Award goes to the sophomores who have attained the highest scholastic average. And lastly, the Purple Cam Shaft award is for the faculty member who has made the biggest impact on PTS students. The picture shows the Purple Cam Shaft Award in Figure 13.

Figure 13. Dr. Zhang is awarded Purple Cam Shaft by PTS President Parth Kathrotiya