PI TAU SIGMA ANNUAL CHAPTER REPORT

2013-2014

University of Florida

Florida Sigma Omicron

A. Initiations

Initiates are chosen from the representation of the top 35% of students in the mechanical engineering department who are at least in their third year or have the equivalent 90 credits. For students who classify as juniors, their status is determined for the top 25% of students who have completed 4 semesters (2 years) of course work. For seniors, their status is determined from finding the top 33% of students who have completed 6 semesters (3 years) of course work. These eligible candidates are contacted by the current president, are informed of their selection, and are invited to an introductory meeting. Our chapter receives the list of candidates during the first month of the semester from the administration of the UF College of Engineering.

Candidates who attend the introductory meeting are briefed by the President, Vice President, and other officers with a presentation on Pi Tau Sigma. This presentation includes examples of how the members interact with each other, the department, and with the engineering community as a whole. Officers introduce themselves and describe their roles in the chapter. All candidates who attend this introductory meeting, who attend events, or who send an email of interest are recorded and are added to an initiate list serve. Their attendance at events is recorded throughout the semester.

Initiates are required to go to six events over the course of the semester, but are encouraged to attend more and socialize with the other members and initiates. They must attend: one Pi Tau Sigma sponsored lab tour, company information session, or related activity; one service project; one fundraising event; one chapter social; the end of the semester Kick-Ball game; and the initiation ceremony. Initiation is mandatory and is usually held a week before final exams. If an initiate cannot attend a certain event and would like to substitute another, e.g., an initiate cannot attend the last service event of the semester and instead wants to attend two lab tours; they must obtain permission from the president, vice president, or the membership chair. A one-time dues payment is required before the initiation ceremony. If any of the requirements are not met or if the initiate cannot attend the initiation ceremony, they must wait until next semester to be initiated, assuming they are still eligible. When an initiate pays their dues, they receive a Pi Tau Sigma bent. Initiates are encouraged to polish their bents. At initiation, the initiate who has the best looking bent, as voted by the officers, receives a prize.

The initiation ceremony follows tradition. Initiates are brought into a conference room with the current officers at the front of the room. A table decorated with the Pi Tau Sigma coat of arms and other memorabilia is in the middle of the room. The president and vice president follow the Pi Tau Sigma initiation handbook and describe the coat of arms and the values of Pi Tau Sigma. Once the initiates pledge to uphold the ASME code of ethics, they are congratulated and

welcomed as members. To signify this, they are taught the chapter's secret handshake and each initiate shakes hands with the officers.

At the end of the spring semester's initiation, officer elections are held. All members, including those who were just initiated, can run for a position.

Our chapter held two initiations this year. The fall initiation was held on Thursday, December 5th and saw thirteen new members added to the Florida Sigma Omicron chapter. The spring initiation was held on Thursday, April 24th and saw nine new members as well. The fall initiation saw an increase of 33% in number of initiates and the spring initiation saw an increase of 50% in comparison to the previous year. Of these new members, ten of them ran and were elected to be officers for the next academic year. The leaving officers welcomed and congratulated the new officers.

B. Chapter Activities

The Sigma Omicron chapter is part of many activities and events that promote involvement in the mechanical engineering department and that introduce students to excellent opportunities for their future. The chapter allows for the members and initiates to work with high-achieving students from the other engineering societies network with professors to gain research opportunities as well as members from industry to gain internships and full-time jobs. Additionally, our chapter gave back to the department and the UF community by providing department wide events and hours of community service work.

Community Service

Community service events are often in collaboration with the other engineering societies. One such collaboration is GatorTRAX, a program that introduces many engineering related skills and ideas to elementary, middle and high school students. The Sigma Omicron chapter works together with the Florida chapter of Tau Beta Pi in teaching these young minds new concepts. Officers and members explain to the students, through physical examples, basic concepts of physics, such as velocity and acceleration. This past year, our chapter increased our roll with the program by acting as host for the mechanical engineering weekend of GatorTRAX. In previous years, Pi Tau Sigma only provided members to help support the projects. This year, the officers were responsible for planning the schedule of events, purchasing all the required supplied, and then organizing the volunteer groups, and overseeing the build projects. The project selected for this year was for the kids to make several different types of air cannons and study the formation and effects of air vortices. There were approximately ten Pi Tau Sigma officers and initiates working the event as well as the Tau Beta Pi volunteers. Over 50 kids participated in the event.

The annual E-Fair is a well-recognized event at the University of Florida. At the E-Fair, engineering groups from all departments come out and demonstrate the fundamental ideas of their core learning to elementary and middle school students, as well as faculty, visiting alumni and fellow students. Pi Tau Sigma presented the air cannon and air vortices activities at this event, much to the delight of the students. Hundreds of students came through during the two day event to play with the cars and of course, enjoy the candy.

Additionally, Pi Tau Sigma organized a trail cleanup day at the Hawthorne Trail in Gainesville, FL. The Hawthorne Trail is a 16 mile stretch of paved trail that passes through many nature reserves and is a popular recreational spot for the community. Unfortunately, the trail is not always well maintained and garbage and dangerous refuse can accumulate on the path. Members volunteered for a day and walked the trail and surrounding nature parks while picking up any man-made garbage and refuse. The park managers were very glad for our assistance, and the members had a great day out in the sun.

Departmental Service

The MAE Undergraduate Research Symposium is an annual poster presentation event in which undergraduate students can share their research with faculty, students and notable members of the External Advisory Board. This event is coordinated with the UF Mechanical and Aerospace Department annual Awards Banquet. This year, there was a big push from the department chair to expand and develop the Symposium. The chapter responded to the call, and increased the presenter participation by over 4 times the previous number, totaling 25 presenters compared to the previous year's 6. Invitations for the symposium were sent out through the department undergraduate listserve, flyers were posted in every engineering building, and announcements were made in class. All interested undergraduates received a PowerPoint poster template where they would describe their research topic by giving the background, problem statement, and current and future work of the project. Once all of the posters were completed and returned, the officers printed out and laminated the posters for the students. The Symposium was held in the rotunda of the main engineering building on campus, expanding visibility of the event to the entire College of Engineering. A panel of 6 judges was created from the External Advisory Board and these members spoke to each presenter and reviewed their work. After much deliberation, three winners were selected and were awarded not only an invitation to the MAE Awards Banquet, but were also awarded cash prizes. The cash prizes were $250 for first place, $150 for second place, and $100 for third. The event was considered a great success and was highly regarded by not only the faculty and Board members, but also among the students who attended. These students expressed much anticipation for next year's Symposium, giving them renewed inspiration to conduct their research.

Several of our chapter's officers attended the annual Mechanical and Aerospace Engineering Department Banquet at the University of Florida. These officers represented our chapter and presented the Outstanding Alumni Award to distinguished guests. Several of the Pi Tau Sigma members were also honored during the event, with our President receiving the MAE Outstanding Leadership Award in Mechanical Engineering for her work with Pi Tau Sigma and the department.

Social Events

This year, the Sigma Omicron chapter brought together the other MAE engineering societies of AIAA, ASME, and SAE, along with the faculty of MAE, by hosting the second annual MAE kickball tournament. A little friendly competition along with plenty of food and drinks is always a fun time for all of the members to get to know each other. The tournament was played on the intermural softball fields on campus and consists of three rounds of playoff style single elimination. Around 60 members for all of the clubs participated in the event. This year, we were happy to include a faculty team at the event. The winner of the society tournament was then pitted against the faculty team, for a final round of games. This year, AIAA took home the win and were awarded with the brand new MAE Department Kickball Champions Cup.

In addition, our chapter holds many social events for the members. Our social events range from frozen yogurt at the local Mochi frozen yogurt to spending a day on Lake Wauberg. This year, we also collaborated with the Small Satellite Design Club to host a social in celebration of Yuri's Night for some space themed fun. These events are always well attended by members, officers and initiates. This academic year in particular, our socials were lauded as being very fun and enjoyable. Initiates attending these socials are given the chance to personally find out who their officers are and have a great time. The end of the semester Kick-Ball game is another great social event for the initiates to get an opportunity to beat the officers who they have worked with all semester.

This chapter also arranged a Pi Tau Sigma graduation photo shoot for the graduating class of 2014 which was well attended and a great time to recognize the hard work of the graduating class.

Fundraisers

Our largest fundraiser is through the department polo sale. The department donates the funds for the Sigma Omicron chapter to purchases the polos through a local design company. Thus, all of the profits raises in the sales are used to fund all of the events through out the semesters. These polo consist of the UF Gator Engineering logo and have the words Mechanical and Aerospace department under the logo. Students purchase theses polos to wear to info sessions and during internships. Recently, we have expanded our selection to both boys and girls polos in both white and blue colorations.

Private Company Information Sessions

This year we were fortunate in forming a relationship with General Electric (GE) Appliances and were able to hold two private information sessions with their recruiters for our members. These info sessions were unique from others that are offered on campus in that they were very informal, and held in an intimate conference room. Three recruiters from GE sat down with about a dozen PTS member and had informal discussions about their company, the recruitment process, career advice, and Gator football. The format of this info session was possible due to the small size of our society and was well received by the participants.

National Convention

This spring, the Sigma Omicron chapter sent five members to national convention, all of which would be at UF for the following academic year. This decision was made due to the majority of officers graduating and leaving this year. The new cycle of officers were sent preemptively so that the next generation of officers could benefit from the national convention experience and implement what they learned there. All of the attending members enjoyed the experience and brought back ideas which will help with grow the chapter at UF. The members participated in all of the event and attending the career showcase event.

Member Communication and Meetings

Members of the Sigma Omicron chapter receive email updates of events happening in the local mechanical engineering department. Graduate students and professors contact our advisor and ask for any Pi Tau Sigma members who are interested in working in research workshops or labs. Members are invited to seminars and department lectures being held by professors and those working in the mechanical engineering field. Our officers arrange tours of engineering professors' laboratories that are open to all members and initiates. These laboratory tours are a great way for members to meet professors and have a chance to talk to them about research opportunities.