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PI TAU SIGMA FLORIDA SIGMA OMICRON

Chapter Summary 2018 - 2019

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A. Initiations

Selection Process

Florida Sigma Omicron chapter of Pi Tau Sigma takes great pride in our initiates each semester and thus go through great lengths to ensure we are initiating the best possible initiates. Our selection process begins before the semester even starts as the Secretary gathers a list of eligible names from our department. Our standards have always been the set standards listed by the national PTS organization; any undergraduate student who's class rank is in the upper 25th percentile and who's GPA is at least above 3.25/4.00. Now at The University of Florida to be in the upper 25th percentile that usually corresponds to a GPA around 3.70/4.00.

Once the eligible students have been selected they are all sent a congratulatory email from Florida Sigma Omicron chapter inviting them to attend an info session. These info sessions are mandatory unless a students contacts us, then we are able to provide he or she will the necessary information. For the students who attend the info sessions we give them a brief presentation on the history, ideals, values, and benefits of PTS. After our couple info sessions these students can then enter the next step to their initiation process. The next main task for the students is to complete all their initiation requirements. These events include; attend 1 social event, 1 service event, 1 lab or company tour, our annual polo sale, and our annual kickball game. All of these events are detailed much more below.

The last main events for the initiates is the bi-annual kickball game. This event is mandatory for initiates as we usually do teams of initiates vs. officers. Initiates are usually very enthusiastic about this event as it allows them a fun, relaxing day away from studying. Usually, the event is toward the end of classes so most people are ready for a break. Once the initiates have attended all the requirements and paid their dues they are ready to be initiated.

Initiation

At the University of Florida we have "reading days" toward the end of each semester. These are a couple days in the last week of classes where there are no physical classes. This allows students extra time to study for exams. We always hold our initiation during those days. At initiation, members, officers, and initiations are expected to dress business professional. The initiates are sat down and given a presentation on some of the important aspects of Pi Tau Sigma. These aspects include; criteria for their membership, ASME Code of Ethics, PTS ideals, and the details about the keys and emblems of PTS. Once the presentation concludes each new initiate is congratulated by each officer with the official PTS handshake. Food is provided to all attending initiation and then the officers for the next semester are elected.

On average Florida Sigma Omicron chapter averages about 9 initiates each semester. For the Fall 2018 semester we had 13, and for Spring 2019 we had 8. About 50% of the new initiates chose to run for officer positions. Florida Sigma Omicron values initiates running for officer positions as this gives new insight into the officer board along with keeping those initiates involved in the organization.

The initiates classes for Fall 2018 and Spring 2019 can be found in Image 1 and Image 2.

Image 1. Initiate class (seated at table) for Fall 2018. Also shown is officers (standing).

Image 2. Initiate class for Spring 2019.

B. Chapter Activities

Service Events

Each semester we have 2-3 service events to help keep Florida Sigma Omicron an active member of the community. This semester we worked with the Alachua County Humane Society and the Alachua County chapter of Keep America Beautiful. As volunteers of Keep America Beautiful, we were able to participate in the Great American Cleanup event where volunteers from all around the country worked to clean their respective cities. During this event, Florida Sigma Omicron volunteers were asked to clean a small section of roadway in downtown Gainesville. This was a great event and our impact was clearly seen as we were able to fill nearly 7 bags of trash from this small section of road (as seen in Image 3). The second service event was held at the humane society and allowed volunteers the opportunity to work with humane society staff to care for the animals in the shelter. Our chapter has worked with the humane society in the past, and it has always been a great service event for us. The humane society is always looking for volunteers, and working with animals is usually a highlight of the initiation process. Overall, the service events from this semester were a great way for members to connect and donate their time in a meaningful way.

Image 3. Members cleaning roadway as part of the Keep America Beautiful event.

Socials

Each semester is filled with 5-6 socials for the initiates and active members to attend and meet one another. After the first info session, we had our first social opportunity at Yogurtology. Initiates and officers enjoyed self-serve frozen yogurt while getting to know one another for the first time. The next social was held at the Reitz Union Bowling Alley and Game Room. Attendees had fun in a round of bowling and playing several rounds of billiards. The 3rd social was held at Sweetberries. Initiates enjoyed a cup of frozen custard of their choosing. We got to know one another and discussed our plans for Spring Break. Some plans included staying in Gainesville, writing a Mechanics of Materials lab report, while others traveled to Europe. The 4th social was held at Plaza of the Americas as members met up for some all-you-can-eat Krishna Lunch. Initiates ate while discussing their upcoming projects and exams. What a great way to take a break from studying! The last social was a Sigma Omicron tradition of all-you-can-eat wings at Gator's Dockside (as seen in Image 4). Everyone had a great time trying out the new flavors and challenging each other to eat spicy wings.

Image 4. Members enjoy all-you-can-eat wings night at Gator's Dockside.

Intro To Engineering

During the semester, one of Florida Sigma Omicron's responsibilities to the Department of Mechanical and Aerospace Engineering at the University of Florida is to assist in teaching the Introduction to Engineering class. It is a freshman level class in which students who may be unsure of which engineering major they want to pursue are taken to the different departments. Each week they are given a tour of the facilities, and told about the different aspects of each department and major including research opportunities, student involvement, and coursework. For the Mechanical and Aerospace section, we work with a member of the department faculty to inform the students on what our department has to offer. The faculty member will go over things such as department enrollment statistics, research opportunities and coursework that students in the department can expect to encounter. We, the Pi Tau Sigma officers, then go over student involvement, including the professional societies, student design teams, and, of course, Pi Tau Sigma. Following the presentation portion of the class, we lead the students across campus to the Rapid Prototyping lab, which houses some of the 3-D printers available to Mechanical and Aerospace students. Following this, we lead them to a nearby facility known as the Design and Manufacturing Lab. Here, there are mills, lathes, CNC machines, and other manufacturing equipment that is used to teach the Design and Manufacturing Laboratory class. Throughout the time the students are with us, we also are able to go over other aspects of student life in the MAE department as well as answer any questions the students may have. We believe that teaching this

class is an excellent way for us to share our passion for mechanical engineering and help share what we know about the profession that we hope to one day be a part of.

Research Symposium

Each spring semester, Florida Sigma Omicron organizes a research symposium for mechanical and aerospace students to showcase their research projects. In previous years, this symposium only contained undergraduate research topics. However, this year, we coordinated with the Graduate Student Council of the MAE department to also display graduate student research as well. This was beneficial, as a more well-rounded view of research being done by the department was provided. We asked members of the External Advisory Board to judge the competition aspect, and all three of the judges expressed their admiration for the research being done by UF MAE. We had 11 participants this year spanning both graduate and undergraduate students and we hope to grow to more students next year!

Image 5. Poster competition participant presenting research to judges

Polo Sale

Once a semester, we hold a polo sale to offer our fellow mechanical engineers a special mechanical department polo to wear for any business casual occasion. Initiates are required to spend at least an hour helping out this sale. Last year, we sold the polos at the New Engineering Building, then we decided to move this year to the front of the Reitz Union, where most of the

student traffics follows through. After this decision, the amount of polos that were sold almost tripled the amount from previous years. This has shoulded that the polo sale was quite successful, however like the decision to change location, there are still improvements to be made.

Lab/Company Tours

The Florida Sigma Omicron chapter tries to tour multiple companies or labs each semester. In fact, it is a requirement that the initiates each semester attend either one lab tour or company tour. In the Spring 2019 semester we toured a Gainesville based, UF alumni, startup. This company is called Myolyn. Myolyn builds a stationary bike - similar to the ones in a gym - however, their bike is much different than others. Their bike uses strategically placed electrodes and perfectly timed electric pulses to help paralyzed people actually pedal the bike. Florida Sigma Omicron values company tours in the Gainesville areas as we hope to build bonds between our members and current engineering companies in Gainesville. The students and officers who attend the Myolyn tour are shown in Image 6.

Image 6. Florida Sigma Omicron initiates and officers talking with the CEO of Myolyn.

Initiates have the choice to satisfy their tour requirement by attending either a lab tour or a company tour. We usually plan 2-3 lab tours each semester and 1-2 company tours. This past year we toured our faculty advisors lab. Dr. Hitomi Greenslet and her students working in the Non-Traditional Manufacturing Lab are working on new, innovative ways to manufacture pieces. Most of their lab work focuses on the final step in the manufacturing process, surface finish and/or polishing. On this tour we saw Dr. Greenslet's students using robots and other machines to polish complex surfaces and even the inside of biopsy needles. We also saw the ways they polish glass and lenses used in optics and lasers. Overall, the lab tour was very successful and even one of our initiates started researching with Dr. Greenslet.

Kickball Game

Initiates are required to participate in a kickball game between the current Pi Tau Sigma officer board and the initiates towards the end of the semester. Typically, attendance of this kickball game is mandatory for the initiates and acts as their final requirement before they can be initiated. However, if an initiate has another responsibility in place that keeps them from being able to attend the kickball game, the officers give them an option to give a brief presentation to the officer board about something they are passionate about to make up for this requirement. For example, one of the initiates who wasn't able to attend the kickball game gave a 10 minute presentation about her research that she participates in through the University of Florida.

Everybody who was able to attend the kickball game had a great time. Since it was towards the end of the semester, it was a great study break for both the initiates and the officers and was a fun way to take our minds off of school for a couple hours. We also brought a frisbee and a football to throw around for people who preferred that over kickball. The officers also provided pizza to the initiates after the game was over, and we all had a fun time getting to know each other even better. Overall, the kickball game was a success and both the officers and initiates were happy that we included this as a requirement for initiation.