Pi Tau Sigma Annual Report

Drexel Xi Chapter

2018-2019 Academic Year

A. Initiations

Selection Process

The selection process for the Drexel Xi chapter of Pi Tau Sigma is dependent upon both the prospective members' academic record as well as their willingness to be involved in university activities. A list of prospective students in the Mechanical Engineering and Mechanics department at Drexel University who have met the academic requirements for the Pre-Junior, Junior and Senior class standing is provided by the Academic Advisor of the department to the President of the Drexel Xi chapter one month prior to the induction ceremony. Next, the Vice President of Pi Tau Sigma Drexel Xi contacts each prospective member to invite them to be a part of the honor society. The stipulations set out in the invitation to be inducted into the honor society are: (1) Attend an informational meeting explaining Pi Tau Sigma and (2) Attend the induction ceremony. We also host a dinner for the inductees following the induction ceremony to celebrate their accomplishment.

Requirements

Each prospective member must meet the requirements set forth by National Pi Tau Sigma via the Constitution and reinforced by the Drexel Xi Pi Tau Sigma Constitution. These academic requirements for Pi Tau Sigma Drexel Xi chapter are reflected as follows:

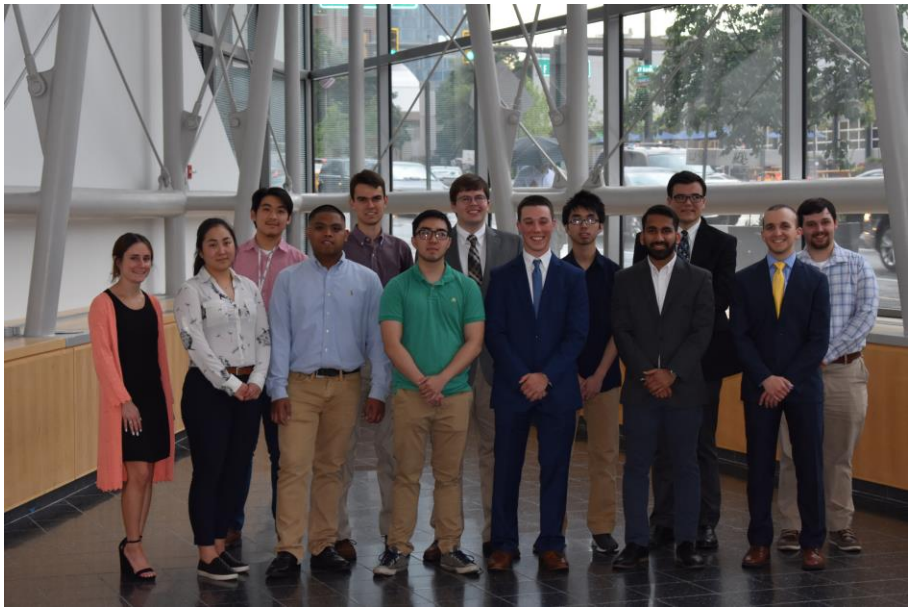
- student's ranking must lie in the upper 25% percentile of the student's respective classification
- A last term senior who is in the upper 25% percentile of the seniors' class, who is deemed worthy, may be initiated only upon permission of the Board of Directors

Within these ranges, Drexel Xi Chapter also requires a 3.5 GPA minimum. If there is not a reasonable number of students who meet the GPA requirement, as determined by the officers and advisor of the chapter, the range is opened to edge of the range but not past the 3.25 GPA Nationally required floor.

Ceremony, Rituals, and Celebration

Induction ceremonies were held twice during the 2018-2019 academic year. The first induction ceremony was held during the fall quarter on Thursday, November 8th in the Mechanical Engineering and Mechanics Seminar Room with the members of the Pi Tau Sigma Drexel Xi executive board in attendance. There were 10 students inducted. The second induction ceremony was held during the Spring quarter on Friday, May 17th which was also in the Mechanical Engineering and Mechanics Seminar Room with members of the executive board in attendance. There were 9 people inducted. Our rituals uphold the script found in the Pi Tau Sigma National Constitution. Following the rituals of Pi Tau Sigma, a photo of the initiates with the present executive board members was taken in the Main Building of Drexel University. After each induction ceremony, initiates were invited to celebrate their achievements with the executive board with a dinner paid for by Pi Tau Sigma Drexel Xi chapter. The majority of initiates attended the celebratory dinner and found it a great time to network and meet new members of the organization. The inductees of both induction classes are pictured below.

Fall 2018 Pi Tau Sigma Drexel Xi Induction Class



Spring 2019 Pi Tau Sigma Drexel Xi Induction Class

B. Chapter Activities

Leadership and Service

Pi Tau Sigma Drexel Xi works to keep a line of communication between faculty and students to better improve the effectiveness of course evaluations and general departmental improvements. A prime example of this was when a member of the board was asked to serve on the undergraduate promotion committee for a professor in the Mechanical Engineering and Mechanics Department during the fall term. This involved creating a survey to gauge the professor's quality of teaching, willingness to help and interact with students, and ability as a research and organizational advisor. The survey was disseminated, results were examined, and a report was written and submitted to the department head.

Another member of the board was asked to serve on the Undergraduate Studies Committee by the department head to introduce student feedback into the process of shaping the curriculum and the undergraduate student experience. This appointment allowed the board member to contribute to conversations that had the potential to effect change in the department for the betterment of the students.

Senior Design is the culmination of an engineering student's time and effort at Drexel. Therefore, the Drexel Xi Chapter sought out to aid a team in making their design a success through an awarded stipend from the chapter. Any team with one or more Pi Tau Sigma members in it was eligible to apply. A committee of Pi Tau Sigma members was assembled to attend the fall term presentation of each team that applied and to vote on the winner after deliberations that considered many factors. The winning team utilized the stipend in the prototyping and testing phase of the design project.

Professional Events

Every year Drexel Xi's chapter of Pi Tau Sigma works to host events geared towards professional development. During the 2018-2019 academic year, three such events were held. The first of which was a joint event with ASME to host a previous president of Pi Tau Sigma, who is now pursing her PhD at Stanford University. This event was an overwhelming success. Not only was the presentation given technically engaging and informative, but the Q&A session afterward was also very productive. Students in attendance asked the speaker many great questions about her research and about her experience as a PhD student and a Drexel graduate. Such an event shows how powerful keeping a strong alumni network can be.

The second profession development event was hosting a startup company whose main focus is helping college students determine the weak points in their soft skill and how to develop their careers while in and out of school through the use of carefully designed algorithms packaged in a phone app. This event was open to the entire department to maximize the student exposure and the feedback for the company, so they could continue to improve as well.

The third, and final, professional development event held this year was the Fundamentals of Engineering (FE) exam information session. The FE exam is an important exam for graduating engineers to consider taking as it is a requirement to apply for a Professional Engineering (PE) license. The goal of this event was to inform students on the benefits and uses of the FE exam and a PE license. Specifics of the exam (how to register, topics covered, length

and difficult, etc.) were also covered. The attendance and response were so good that FE study sessions were proposed as future events to be held.

Social Events

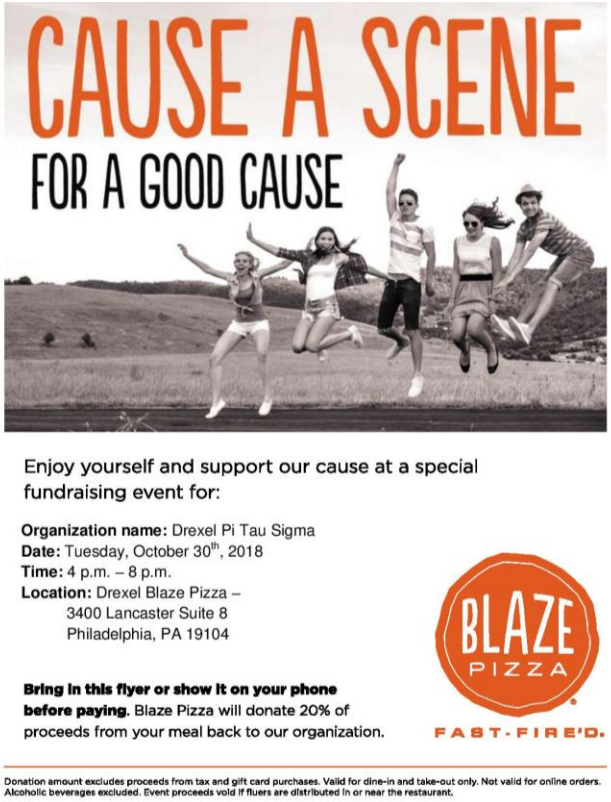
To promote camaraderie and amiability amongst its members, Pi Tau Sigma Drexel Xi held a number of social events during the 2018-2019 academic year. The first of which came after the fall induction. New and old member were invited to meet and mingle with one another over pizza and a game of engineering Quizzo. Engineering Quizzo tested the members' knowledge and understanding of concepts learned in the classroom and challenged them with questions about the people who invented such concepts.

In the winter term, members were invited to use their ingenuity and teamwork to make it out of the Franklin Institute's Intergalactic Escape Room. This all-expense-paid event was a fun and challenging exercise for all who were involved. The team was able to escape with time to spare!

The Intergalactic Escape Room Participants

Fundraisers

The Drexel Xi chapter utilized four means of funding for the organization this year. The first is from dues; at the time of initiation, students are asked to pay $60, $35 of which is for national dues and $25 of which is designated for the Drexel chapter. A large portion of funding is subsidized by the Student Activity Fee Allocation Committee (SAFAC), for which Pi Tau Sigma applies each year. The executive board applied for specific funding from both the College of Engineering and SAFAC to pay for the cost of sending three board members to the 2019 convention and to pay for the induction dinners. Finally, the chapter hosted a fundraiser at Blaze Pizza not only to raise money but also to interact with members outside of school.



Blaze Pizza Fundraiser Flyer

University Events

Open houses held by the Mechanical Engineering and Mechanics Department and College of Engineering for prospective and accepted students are scheduled throughout each quarter at Drexel University. Having their own table among other departmental organizations, Pi Tau Sigma members were able to share experiences and knowledge not only of the Drexel University system and atmosphere but of Engineering and more specifically Mechanical Engineering to better inform those considering a similar path of study. Pi Tau Sigma board members, with the assistance of their faculty advisor, were also responsible for the attendance of graduate students who showcased testing equipment used in one of the classes in the department. During one open house, a board member was asked to speak on a student panel about his experiences at Drexel.

Chapter Meetings

Drexel Xi chapter meetings were held at various levels of operations within the organization. Throughout each quarter (fall, winter, & spring) of the 2018-2019 academic year, weekly meetings were held for the officers of Pi Tau Sigma. Meetings were typically at around 5:00pm or 6:00pm in order to accommodate the schedules of those at Drexel with class as well as those on co-op. These meetings were at least one hour long with a detailed agenda, subsequent action items, and minutes. General body meetings were also held by the chapter to ensure transparent, consistent communication between the executive board and its members. There was also the matter of electing the new members of office. Members were elected democratically within the organization, some of which went unopposed, but nonetheless were announced to the general body.

National Convention

Three members of the Drexel Xi chapter attended the 98th annual Pi Tau Sigma convention held this year at Colorado State University located in Fort Collins, CO. Overall, the experience was a great event to network with other high achieving Mechanical Engineering students from universities across the country and around the globe. Attending members were able to talk with leaders from thriving and struggling chapters alike, learn from their successes and failures, and share Drexel Xi's experiences with them as well. For example, there were many different perspectives gained from conversing with these students about different events to hold, especially service-based events. The attending members intent to use this experience to help improve the chapter with more service moving forward. Interacting with fellow Pi Tau Sigma members and participating in professional and social events at the convention also motivated the attending members as leaders of the chapter, which they hope to spread to the chapter's members.

Attending Members at the 98th Annual Pi Tau Sigma Convention

C. Other

2018-2019 Academic Year Officers

President: **Ronald Vitola**
Vice President: **Kevin Legge**
Treasurer: **Kevin Cunningham**
Event Coordinator: **Jagteshwar Boyal**

Faculty Advisor: **Dr. Kontsos**

2019-2020 Academic Year Officers

President: **Angelica Batista**
Vice President: **Evelyn Kamuyu**
Webmaster: **Kevin Legge**
Treasurer: **Kevin Cunningham**
Event Coordinator: **Hyukjun Kwon**

Faculty Advisor: **Dr. Kontsos**