Pi Tau Sigma Annual Report

Drexel Xi Chapter

2013-2014 Academic Year

A. Initiations

Selection Process

The selection process for the Drexel Xi chapter of Pi Tau Sigma is dependent upon both the prospective member's 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. The list is then screened by the Department Head as well as the Assistant Dean of Student Conduct and Community Standards so as to remove any and all prospective students who have violated the Drexel University Academic Honesty Policy. After the list has been screened, the 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 at least two events hosted by either Pi Tau Sigma or the Mechanical Engineering and Mechanics Department. These events typically fall under the classification of social, volunteer, or service upon which the prospective students are regularly invited to attend. Should members who have met the rigorous academic requirements, meet the additional informational and involvement requirements for the Drexel Xi chapter, they are then cordially invited to participate in the upcoming induction ceremony and subsequently solidify their role as a member of the organization for life.

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:

- First term Juniors upper 25%, Last term Juniors upper 25%
- First term Seniors upper 33%, Last term Seniors upper 35%

Additionally, the aforementioned information session attendance as well as proof of attendance at at least two events hosted by either the Drexel University Mechanical Engineering Department or by the Pi Tau Sigma Drexel Xi chapter is required of inductees. Above all, each inductee is required to pass an academic honesty screening conducted by the Department Head of Mechanical Engineering and Mechanics as well as Assistant Dean of Student Conduct and Community Activities at Drexel University. This ensures each student inducted into Pi Tau Sigma Drexel Xi follows the Drexel Academic Honesty Policy, maintaining the integrity of the organization.

Ceremony, Rituals, and Celebration

Induction ceremonies were held twice during the 2013-2014 academic year. The first induction ceremony was held during the Fall quarter, Friday, November 22nd 2013 from 6-7pm in the Mechanical Engineering and Mechanics Seminar Room with all members of the Pi Tau Sigma Drexel Xi executive board in attendance. The second induction ceremony was held during the Spring quarter, Friday, May 23rd 2014 from 6-

7:00pm as well in the Mechanical Engineering and Mechanics Seminar Room with all members of the executive board in attendance. 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 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. All together 21 students were inducted into the honors society at the Fall 2013 induction. The induction class, along with the executive board, is pictured below.

Fall 2013 Pi Tau Sigma Drexel Xi Induction Class

The Spring 2013 ceremony accrued 18 new members. The induction class is pictured below.

Spring 2014 Pi Tau Sigma Drexel Xi Induction Class

B. Chapter Activities

Leadership and Service

The main goal of the Drexel Xi Chapter of Pi Tau Sigma is to act as the liaison between students and the mechanical engineering department. There are many ways in which we fulfilled this role, but one of the primary ways was through conducting our second annual MEM Student Survey. This survey pooled information from students on the strengths and weaknesses of the department, as well as ideas and suggestions for developing a stronger department and curriculum in the future. Over 180 responses were recorded, organized, and prepared into a comprehensive report. This report was given along with a presentation to the faculty at the May 2014 faculty meeting. The faculty were very receptive, and many asked for additional copies and information to incorporate the advice into their lectures and courses. Additionally, based on our report from last year the department has committed to buying entirely new equipment for the teaching labs, giving students greater access to machinery for projects, and renovating the student computer center. The department has also reached out to Pi Tau Sigma to help redesign the curriculum for future years.

In May 2014 Drexel Xi and ASME headed an undergraduate committee for interviewing candidates for new faculty positions. Through a rigorous interview system culminating in surveys and reports on each candidate, Drexel Xi was able to recommend its top choices for the open position.

The members of Drexel Xi also serve as representatives at MEM department Open Houses and Accepted Student Days, fielding questions from prospective students and their families about the department and student life. Our students give presentations

on their Drexel experiences and sit on panels to address big issues for incoming students and their parents.

Accepted Students Day Information Panel

Our members also sit on two major faculty committees within the department: the Undergraduate Curriculum Committee and the Student Advisory Committee. The Undergraduate Curriculum Committee is designed to make the curriculum more streamlined, comprehensive, and practical. The Student Advisory Committee handles student issues, student organizations, and departmental social events.

Finally, Drexel Xi has partnered with the MEM department and the Academic Center for Engineers to connect our students with those struggling in higher-level engineering courses. We have collected a list of volunteers and are matching each new student request for a tutor with an appropriate honors student. This strengthens the academic knowledge of not only the struggling student but the tutor as well.

Professional Events

For the 2013-2014 academic year Drexel Xi wanted to be sure to hold a research event, professional event, and a large speaker series. For our research event we reached out to our newest faculty, Dr. Chris Weinberger. Drexel Xi interviewed Dr. Weinberger last year for a faculty position and was overall very impressed with his research and teaching knowledge. Partnered with ASME, we hosted Dr. Weinberger to present on his research on multiscale materials modeling and mechanics.

For our professional event, we reached out to our previous Drexel Xi President, Sean Rossiter. Sean and several other PTS students formed a start-up company called Oat Foundry, based on their senior design project. We had Oat Foundry discuss their company, as well as to walk students step-by-step through the process of starting a business. They shared valuable information on what to do when creating a start-up, as well as lessons learned of what not to do.

Starting your own Business professional event

For our large speaker event we worked with ASME to host the speaker series and dinner for the 2014 ASME Northeast Regional Student Professional Development Conference, with speakers from MSC Software, Dupont Engineering, Drexel and Disney. This was followed by a dinner, with both events drawing approximately 200 students.

Information Sessions

Our chapter hosted several information sessions throughout the 2013-2014 academic year in order to provide our students with the best and most up-to-date information on the opportunities available to them.

First we organized an event with the Drexel University Fellowship Office. The inception of this event began with the networking of executive board members at University wide events, highlighting the importance of reaching out to resources within the university that might not typically be at hand for the chapter within the department alone. The event was geared towards informing students about nationally and internationally prestigious scholarship programs that help them get the education and experience they need to pursue your professional goals, among them were the Goldwater Scholarship, NSF Graduate Research Fellowships Program (GRFP) and the DAAD Research in Science and Engineering Internships (RISE).

We also hosted a graduate school information session and dinner, where the Drexel Graduate Advisor walked students through the process of deciding on graduate school and applying. This event drew approximately 20 people; the students later commented on how useful the event was since there is little support in engineering for those interested in graduate degrees.

Drexel Xi then worked with the Study Abroad office to give a presentation to students on how to fit studying abroad into

the hectic engineering curriculum. This provided students with the knowledge of how to take opportunities to become well-rounded global citizens. Our President-Elect Jose Uzcategui is now in Colombia for his engineering co-op, and our Vice President-Elect Veronika Legkobitova is studying abroad in Germany.

Last year Drexel Xi took it upon ourselve to make sure that students understood the advantages to participating in the Fundamentals of Engineering exam. We collected information and presented it to seniors, resulting in a large spike in participation in the FE. Because of this, the College of Engineering reached out to us this year to help develop a presentation and online resources for students interested in the FE. We helped the mechanical engineering and civil engineering departments in divulging information to their students, emphasizing the recent changes made to the exam structure.

Social Events

In addition to our many professional events throughout the year, we also hosted and participated in several social events for our students. In the fall term we hosted a brewery tour of Yards, as well as a finals week study break. In the winter we hosted a general body meeting with food, Megabad Movie Night at the Academy of Natural Sciences, and another finals week study break. Spring term we decided to host an event called "Pizza with Professors" for lunch every Tuesday, where students could meet with their professors in an informal setting. We also participated in the Philadelphia Science Festival Event Misunderstood Monsters, and the Senior Send-Off Party at the end of the year.

Chapter Meetings

Throughout each quarter (Fall, Winter, & Spring) of the 2013-2014 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 one hour long with a detailed agenda, subsequent action items, and minutes dictated by the Recording Secretary. Additionally, planning meetings were held at the beginning of the term to sketch out a schedule of desired events and involvement of the organization. The planning meetings were generally two hours, and had an open discussion forum, with secretaries recording consensuses and responsibilities. In addition to the regular meetings, there was also the matter of electing the new members of office. Members were elected democratically within the organization on March 19th, 2014.

National Convention

National Convention, held at Texas A&M University on February 21st thru the 23rd was an instrumental step in the progression and alignment of Pi Tau Sigma chapters both nationally and internationally. Three Drexel Xi officers attended the Convention (Sylvia Herbert, Jose Uzcategui, and Anthony Iacono), in addition to the chapter's faculty advisor, Dr. Antonios Kontsos (one of the only advisors represented at the conference). The convention was exceedingly busy, with Dr. Kontsos stepping up into a leadership role within PTS National, and Vice President Jose Uzcategui volunteering for the committee to plan the 2015 Convention. Additionally, our chapter won the National Outstanding Chapter Award, an honor that we are humbled and grateful to receive.

Drexel Pi Tau Sigma and Dr. Moutsoglou after receiving the Drexel Outstanding Chapter Award

C. Other

2013-2014 Academic Year Officers

Elections Announced – March 19th 2013

President	José Uzcategui
Vice President	Veronika Legkobitova
Treasurer	Dana Bronen
Webmaster	Mitchell Barish
Corresponding Secretary	Deborah Kapilow
Recording Secretary	Erica Fernandex
Member at Large	Ernest Jordan