PI TAU SIGMA ANNUAL CHAPTER REPORT
2011-2012
Cooper Union Pi Phi

A. Initiations

Initiations were held mid-semester in both the fall and the spring semesters. This year, the fall initiation was held on October 13, 2011 and the spring initiation was held on March 29, 2012. No seniors were inducted in the spring ceremony.

Initiations are performed according to the procedures outlined in the Handbook. The initiation ceremony is followed by a social pizza party. Afterwards, a standard meeting takes place in which the new inductees are informed of the short-term and long-term goals and activities of our chapter.

Elections for officer positions are held at the end of every spring semester. All non-graduating members are eligible for nomination. Votes from graduating and non-graduating members are counted.

Selection of initiates into the Pi Tau Sigma at the Cooper Union is based solely on grade point average. Students who meet a minimum GPA of 3.5 by their senior year were invited to join the society.

B. Chapter Activities

FE Exam Classes

This event was held in the spring of 2012. Over the course of 12 weeks, Pi Tau Sigma led FE Exam Review classes for students of all majors.

FE EXAM REVIEW

Exam Date:

Saturday

April 14

Pi Tau Sigma

will have weekly review sessions for the FE Exam beginning in February. Review classes will take place Wednesdays after 6pm (Room to be determined). Other review sessions will be scheduled during the week based on student's needs.

FE Exam topics to be covered:

General Exam (morning section)

Mathematics
Chemistry
Engineering Economics
Engineering Mechanics
Strength of Materials
Fluid Mechanics
Electricity and Magnetism
Thermodynamics
Material Properties
Computers
Ethics and Business Practices

Mechanical Exam (afternoon section)

Mechanical Design and Analysis
Kinematics, Dynamics, and Vibrations
Materials and Processing
Measuring, Instruments, and Controls
Thermodynamics & Energy Conversion
Heat Transfer
Fluid Mechanics and Fluid Machinery
Refrigeration and HVAC

Students of all majors and years are welcomed to attend.

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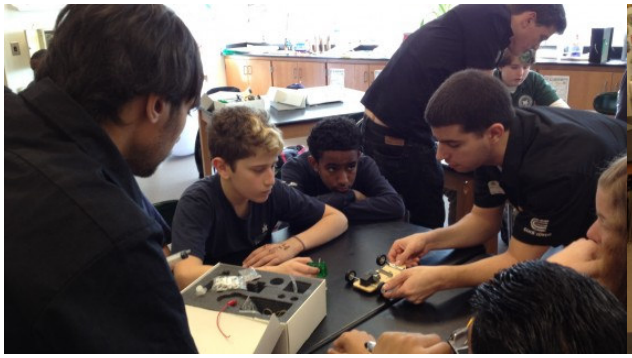
The weekly event attracted a few students, but those students continued to show up each and every week. It was later learned that the scheduled time for the FE classes conflicted with other required classes. In the future, more FE classes should be held at different times of the week to reduce this issue.

John Deere / SAE International AWIM® Learn Twice Initiative with the Metropolitan Expeditionary Learning School

Over the winter break, Pi Tau Sigma worked with the Cooper Union Formula Team to host middle school students from the Metropolitan Expeditionary Learning School (MELS). For three days we gave lessons on fundamentals of automotive engineering and alternative energy, gave tours of our lab facilities. The students were quick learners and were intrigued with the hands-on demonstrations we had prepared.

Over the spring break, Pi Tau Sigma again worked with the Cooper Union Formula Team to teach students from MELS. This time, Pi Tau Sigma and the Cooper Union Formula Team went to Forest Hills, Queens to visit the school. Over the course of the day, we gave lessons on the fundamentals of fuel cell vehicles while the students put together their fuel cell kit cars. At the end of the class period, the students raced their cars.



The mission of the *John Deere / SAE International AWIM® Learn Twice Initiative* is to promote STEM (Science, Technology, Engineering, and Mathematics) in elementary education. This program provided us with a valuable and fun experience in teaching and mentorship.

For more information about the *Deere / SAE International AWIM® Learn Twice Initiative*, visit: http://www.awim.org/about/si/learntwice/

Additional photos from the MELS visit to the Cooper Union can be found at: http://www.metropolitanels.com/MELS/News/Entries/2012/5/13_7th_Grade_Fieldwork_at_Cooper_Union.html

2012 San Jose Pi Tau Sigma National Convention

Two chapter officers were sent to National Convention in Chicago. The members participated in the breakout meetings to discuss the various Pi Tau Sigma agendas. During this meeting, they learned about the different traditions at other Pi Tau Sigma chapters and brought back ideas to create a more active chapter at the Cooper Union.