



**CHEMICAL ENGINEERING STUDENT
SAFETY TEAM
(ChESST)**

Department of Chemical and Biomolecular Engineering
University of Houston

2023 Fundraising Proposal

ABOUT US

The Chemical Engineering Student Safety Team (ChESST) is a graduate student initiative in the Department of Chemical and Biomolecular Engineering at the University of Houston. We aim to promote student safety and wellness within the research community on campus. ChESST was established in 2021, inspired by the Partners in Academic Laboratory Safety (PALS) workshop held by ExxonMobil. ChESST aims to foster safety culture among the graduate students by hosting safety-related workshops and seminars, creating a space for students to discuss safety-related issues, and communicating students' needs to faculty and safety professionals. We host a series of events, workshops and lab inspections every semester, which provide a platform for students to share any safety-related concerns in our department and discuss ways to address them.

“An understanding of safe work practices is an essential part of any chemical engineering program. The UH Chemical Engineering Student Safety Team has played a critical role in furthering this aspect of our program through safety audits, training programs, and monthly newsletters. ChESST now has a strong foundation, and is poised to have an even greater impact in the very near future.”



*Prof. Praveen Bollini
Faculty Advisor*

CHESST ACTIVITIES

Safety workshops

In collaboration with EHS (Environmental Health and Safety) and the University of Houston Fire Department, ChESST has conducted various workshops for graduate students to provide hands-on training on safety procedures and promote awareness about safety protocols. A few examples are listed below:

Waste handling training

A departmental survey disclosed that the students in our dept don't feel adequately trained in waste disposal. Properly labeled waste disposal not only reduces the chances of lab incidents but also serves to save money for post treatment of waste. This year, in collaboration with EHS, we hosted waste handling training sessions and plan to host it once a year in future. The training also includes a mini-quiz.

Fire extinguisher training

Fire Marshalls from UHPD provide a presentation on fire safety and live instruction on handling a fire extinguisher. Knowing how to operate a fire extinguisher is a life skill, applicable well-beyond time spent in a research laboratory.

Rookie mistakes workshop

We plan to conduct this informal session for incoming graduate students where we share experiences and mistakes of faculty, alumni and current students that they are likely to make in their initial days of joining a lab. The purpose is to make the students aware of possible incidents that can happen in a research environment, and what course of action should be followed in such a scenario.



Chemical engineering students attend a workshop on handling chemical waste. In total, over 50 students were certified as a result of this training session.



Chemical engineering students receive hands-on fire extinguisher training with a member of the University of Houston Fire Department.

Biannual safety audits

We conduct peer-to-peer safety audits (once per semester) where a lab safety officer from each research group provides our team a short safety-oriented tour of their lab to discuss prevalent safety issues and ways to address them. Each lab is graded based on their responses to specific questions and the level of precautions they take to ensure lab safety. Each semester, one group demonstrating exemplary safety is awarded a gift card. The purpose of these audits is to have an informal conversation with the lab members about their safety protocols and discuss the ways to improve research practices within each group.



Students discuss the potential hazards involved with laboratory experiments.

Seminars

We plan to invite speakers from academic and industrial backgrounds to discuss topics related to safety.

Networking and social events

We organize social events every semester (e.g., trivia nights, bowling and yard games) to improve networking among students. As a growing organization, we partake in graduate student orientation to engage with the incoming students and the department's annual research symposium.



Representatives of 6 universities, including ChESST members from the University of Houston, attend the annual PALS workshop hosted by ExxonMobil.

Newsletter and flyers

We circulate monthly safety newsletters in the department to communicate standard lab practices, safety tips, upcoming events, contacts, training, and more.

PALS (Partners in Academic Laboratory Safety) workshop

As we drew our inspiration from PALS to establish this organization, our team members actively participate in this annual workshop organized by ExxonMobil. The workshop is a collaborative initiative for representatives of 6 universities and ExxonMobil to highlight different aspects of lab safety and provide feedback to different universities on improving their safety practices.



A speaker from ExxonMobil introduces lab safety tours at the PALS 2022 Workshop.

Credit-based safety certification

We are working to provide tutorials for students interested in completing safety courses.

ANNUAL BUDGET (\$4500)

Officer stipends: \$2000

Biannual safety audits: \$200

Social events: \$800

OChEGS symposium: \$500

Safety workshops/conferences: \$500

Marketing events: \$500

TEAM



Austin Morales
President



Muhammad Fiji
Vice-President



Mel Montalvo
Webmaster



Peter Edimeh
Secretary



Kumari Shilpa
Board Member



Vraj Chauhan
Board Member



Prof. Praveen Bollini
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