

ChBE Graduate Student Internal Lab Safety Inspection Program

Basics

- Originated, created, and maintained by ChBE graduate students. ChBE DSC and Department Chair provide support and guidance. Two graduate students lead the program (currently William Lamie and Junhuan Ding).
- Operates in addition to the departmental safety program.
- Lab inspections are quarterly, given by a random selection of 8 graduate students out of a pool of volunteers. Each lab inspection takes about 10 minutes.
- An approved inspection metric is used to assign a grade to each lab inspection. The group in the lab with the best grade through the year receives up to a \$500 bonus from the department to spend as they desire. Runner-up gets a free lunch. Unacceptable evaluations are reported to the PI immediately.
- Selected inspectors for each lab remain as anonymous as possible and will inspect all labs, but cannot inspect their own PI's labs. Each volunteer will only inspect labs once per year.
- Training sessions for the selected inspectors are scheduled the week before inspections. The DSC and the Department Chair are encouraged to attend to provide guidance and supervision.
- Pertinent safety information, the inspection metric, and inspection results are posted on a shared drive for all graduates, staff, and faculty to review. Problem areas are discussed at the annual safety review given by the department which must be attended by all graduate students

Results So Far

- 60 individual lab inspections by 20 different inspectors. (Inspections occurring this week.)
- 80% graduate student participation in program

Positives

- Heightened awareness, knowledge and effort by lab workers on safety related issues.
- Less safety issues found in labs compared to before the program started.

Issues Not Fully Resolved

- How to fairly grade wet labs vs bio labs vs computational labs to give each graduate student equal chance to win a bonus.
- Higher bonus/lower rate of inspection vs lower bonus/higher rate of inspection quandary.-Secondary bonus options/givaways to encourage participation.
- Anonymity of inspectors.

Clemson University, Chemical and Biomolecular Engineering

Internal Lab Inspection Evaluation

Principal Investigator: _____ Inspector: _____

Room(s): _____ Date: _____

Safety Item	Exemplary (5 point)	Acceptable (3 point)	Needs attention (0 point)	Comments
Proper lab signage (emergency contacts, PPE requirements)	N/A			
Researchers wearing correct PPE	N/A			
Food-related items in lab needs to be labeled as "Not for Human Consumption"	N/A			
General housekeeping (lab is clean and organized)				
Eye-wash area, aisles and hallways clear of chemicals and clutter	N/A			
Fume hoods in good condition and no chemicals stored inside				
Samples and chemicals stored correctly (secondary containment)	N/A			
Samples and chemicals segregated by hazard	N/A			
Samples and chemicals labeled (name, date hazards)	N/A			
Waste labeled and properly stored	N/A			
SDS and SOP available to group (ask researchers)				
Specialty hazards (ask researchers)				