Empowering Student–Led Organizations to Create Effective Safety Policies

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Student Life on Campus

- Considered vital to post secondary experience
- Chance to hone leadership
- Apply knowledge

**Goal:** Empower students to increase safety in these operations & have metrics for this.
Stakeholders

A. University Leadership
B. Department
C. Faculty
D. Student
E. EH&S
Challenges and Opportunities

- Challenge 1: Nature of Student Groups
- Challenge 2: Identification of Hazards
- Challenge 3: Identifying Current Infrastructure Blind Spots
Challenge 1: Nature of Student Groups

The Concerns:
1. They value trial and error
2. Busy mentors

The Opportunities:
1. Unify on helping group achieve goal
   - Safety recommendations vs. requirements
   - Seek long term partnership
   - Example: Rocketry’s fire safety concerns

2. Support and make allies with those present
   - Non-judgmental conversations to understand constraints
   - Provide resources as option for additional help
   - Example: FSAE fire extinguishers

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Empower as ally
Empower who we can
Challenge 1: Nature of Student Groups

The Concerns:
3. Yearly student turnovers

The Opportunities:
3. SOPs help, not hinder
   • Knowledge transfer
   • Encourages longer term planning
   • Example: Rocketry’s new enthusiasm for SOPs

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Challenge 2: Identification of Hazards

The Concerns:
1. University Governance may not realize hazard severity
2. Reliance on self-reporting

The Opportunities:
1. EH&S must recognize & alert
   - Latest information needed
   - Example: videos of Rocketry events
   - Empower via structure

2. Systemic change
   - For current and new groups
   - In meantime, strong relationships will help
   - Examples: discussions with Provost & Deans’ offices, Chemical Engineering Car Club
   - Empower via structure
Challenge 2: Identification of Hazards

**The Concern:**
3. Limits of in-house knowledge

**The Opportunity:**
3. Seek outside resources if needed
   - EH&S knowledge may not perfectly match
   - Example: FSAE switch to electric car, Rocketry Liquid Nitrous Oxide use

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*You know, I'm something of a scientist myself.*
Challenge 3: Infrastructure Blind spots

The Concerns:
1. Insurance
2. Non classroom settings

The Opportunities:
1. Always ask Office of Risk Management
   - Not all activities are guaranteed to be covered
   - Example: Rocketry at competition
2. Gentle reminders
   - Remind through SOPs
   - Example: Oil situation in garage

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Empower as resource
Empower as ally
The Concerns:
3. Student ownership in safety culture

The Opportunities:
3. Propose safety position held by student
   - Learning experience for student
   - Empower via structure
   - Keeps EH&S up to date on group
   - Example: Silver Snoopy
Measuring Success

- **Quantitative**: 
  - Number of safety documents spearheaded by students
  - Decrease in number of accidents
  - Number of higher hazard groups identified

- **Qualitative**: 
  - Positive relationships
  - Groups reaching out for advice or help
  - Sparking discussion of systemic change/reflection
  - Increased safety culture mentality within group
  - Groups using provided resources
Picture Credits

- **Slide 2:**
  - University of Toronto Mechanical Engineering Dept (https://www.mie.utoronto.ca/programs/undergraduate/mechanical-engineering/)
- **Slide 3:** Columbia Daily Spectator (https://www.columbiaspectator.com/spectrum/2020/04/11/columbia-announces-online-commencement-ceremonies-barnard-to-postpone-commencement/)
- **Slide 4:**
  - Columbia Chemistry: https://outreach.chem.columbia.edu/
- **Slide 5:** Columbia Space Initiative: https://www.facebook.com/ColumbiaSpaceInitiative
- **Slide 6:** Columbia News: https://news.columbia.edu/news/heres-every-columbia-class-day-speaker-we-know-so-far
- **Slide 7:** YouTube https://www.youtube.com/watch?v=QrxAzfPgDrA
- **Slide 8:** Meme wiki: https://en.meming.world/wiki/You_know,_I%27m_something_of_a_scientist_myself
- **Slide 9:** Columbia Engineering: https://www.engineering.columbia.edu/news/formula-racing-design-electric-car
- **Slide 10:** Monochrome Watches https://monochrome-watches.com/history-snoopy-omega-speedmaster-apollo-13-nasa/