Session 3: Managing Hands-On Activities

Dr. Elizabeth DeBartolo, Mechanical Engineering
Dr. Margaret Bailey, Mechanical Engineering
Session Activities…

• Managing hands-on activities

• Objectives:
  • Recognize potential difficulties that may arise
  • Time activities appropriately
  • Help students learn from their mistakes in a safe environment
Before you start the activity:

- Review the Activity Handout
- Make a list of three potential difficulties students might have in each part
- Report back to group
Now you try it!

• Perform the activity
• Make notes of any new difficulties you had and any new potential difficulties you identified
• Report back to the group
How long did it take?

• Average? Range of times?
• In an actual classroom/lab?

• What to do when:
  • Groups finish early?
  • Groups aren’t done when time is called?
Failure *is* an option

- Why?
- Examples…

- What would help alleviate *your* fears of failure in class/lab during a hands-on session?
Wrap-Up and Practice

• Discussion: What’s an appropriate time balance between lecture and hands-on activity for your teaching environment? Why?

• Planning Activity:
  • Create conceptual plan for hands-on activity
  • Recognize potential difficulties that may arise
  • Estimate time required and create test plan
  • What could go wrong?
Support for this work was provided by the National Science Foundation's Course, Curriculum, and Laboratory Improvement (CCLI) program under Award No. DUE-0737462. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.