Session #1: Lab Exams and Lab Assessment

Problems:
• Same pre- and post-lab material; student copying is rampant
• Grade infatuation
• Marking burden on instructors
• Lab anxiety
• Students are visual learners, yet don’t read lab manual, text
• Use of online pre-lab material, “dry pre-lab” using Late Night Labs or LabSkills (Bristol, UK)
  • Setup is quick and easy
  • Immediate feedback

• Use a take-home pre-lab exercise, and have a pre-lab quiz consisting of one or two of the pre-lab questions….easy to mark and confirm students understand a couple of key concepts

• Pre-lab flow-chart can help

• Unique grade distribution: 1/3 for pre-lab quiz, 1/3 for purity/yield and 1/3 for lab report

• Music in labs helps!
• Lab notebook or logbook can alleviate marking procedure/observation section of lab report AND improve students’ note-taking skills (important and relevant!)

• Rather than students handing in their book for marking (pain!) a novel approach was taken by Shirley Barlow (SIAST):

  • Random Lab Book exam…give students unique writing instrument (odd-colour highlighter for example) and give them 5 pieces of data to look for in a short period of time (i.e. “Highlight the volume of HCl did you use to titrate your 2nd limestone sample in Experiment 4”)