Teaching Effectively in the Lab

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Who Am I
Outline

- Mark’s three keys to effective lab teaching
- Style
- How to improve
- Teaching scenario
- Questions
Worst Instructor Ever
#1
Things to Consider Before Teaching

- Audience
- Set-up/ structure
- Duties
- Resources/ support
- Teaching aids
- Knowledge
Audience

• To whom are you teaching?
Audience

- To whom are you teaching?
  - Undergraduates or graduates
  - 1st, 2nd, 3rd, 4th year students
  - Language
  - Culture background
  - Educational background
  - Field of study
Set-up/ Structure

- How are the labs organized?
Set-up/ Structure

- How are the labs organized?
  - Number of labs taught by each instructor
  - Number of labs
  - Timing of labs (concurrent vs separate)
  - Number of instructors
  - Length of labs
  - Supervisor or coordinator
Duties

• What responsibilities does the instructor have?
Duties

- What responsibilities does the instructor have?
  - Demonstrations
  - Pre-lab talk
  - Help sessions
  - Email
  - Out of lab responsibilities
  - Marking
  - Grade book
  - Proctoring
  - Academic integrity
Resources/ Support

- Where can the instructor go for help?
Resources/ Support

- Where can the instructor go for help?
  - Other instructors
  - Lab members
  - Teaching mentor
  - Teaching supervisor
  - Seminars and courses
  - FGSR
  - CTL
Teaching Aids

- What can the instructor use?
Teaching Aids

- What can the instructor use?
  - Blackboard/whiteboard
  - PowerPoint
  - Document camera/overhead projector
  - Handouts
  - Props
  - Activities
Knowledge

- What does the instructor need to know?
Knowledge

What does the instructor need to know?
  ◦ Theoretical
  ◦ Practical
  ◦ Administrative
#1
Things to Consider Before Teaching

- There is a lot of diversity in lab teaching assignments
- Considering these things helps focus your sessions
- Doing these things is not a road map to success
- Failing to consider them could lead to difficulties
#2
Prepare

Preparation is the key
Best Instructor Ever
#3

Emulate Great Instructors

- Enthusiastic/ passionate
- Approachable/ friendly
- Helpful/ student-centered
  - Clear explanations/ directions
  - Answers questions
  - Relevant feedback
  - Available
Notes on Style

- It doesn’t really matter
- Teach to your strengths if possible
How to Improve

- Listen to your students
- Collect feedback
- Work with your teaching supervisor
- Videotape your teaching
- Teaching sessions
- Graduate Teaching and Learning Program
- FGSR
- CTL
Teaching Scenario

- Teaching someone how to ride a bicycle through campus
Teaching Scenario

- Considerations
- Preparation
  - Skills and knowledge
  - Learning objectives
  - Lesson plan
  - Assessment
- Enthusiastic, approachable, helpful
Questions?
Common Concerns

• How will I keep student marks?
• How do I deal with problem students?
• How much time should I spend outside of lab?
• How am I going to teach a course I know nothing about?
• What if I forget to tell the students something?
• How do you deal with all the different students?