Lesson Planning

(A) Outline learning outcomes
- Start with topics based on course readings, lecture slides, recent homework, upcoming assessments, etc.
- Transform into learning objectives.
- Rank in terms of their importance.

(B) Develop your intro
- A creative intro can stimulate interest and motivate students.
  - Many approaches: personal anecdote, historical event, thought-provoking dilemma, real-world example, short video clip, practical application, probing question, etc.
- Think about what information you can give/get in the intro
  - Can you create a question/activity that will help you gauge students’ knowledge/preconceptions of the subject
  - Can you use this to further adapt your lesson?
- Giving an overview: Can help students remember better, follow your presentation and understand the rationale behind activities.

(C) Create the Main Body
- **KEY: Align all activities with learning goals.**
- Usually 2-3 main topics / ideas / problems & 1 extra!
- **Use scaffolding:** Prerequisite skills → higher-level tasks.
  Eg: Making sure students are familiar with the structure of lab reports before asking them to write one.
- **Apply varied methods:** Prepare different ways of explaining the material (real-life examples, analogies, visuals, etc.) to appeal to different learning styles.

(D) Plan to check for understanding
- What questions will I ask to check for understanding?
- What level am I assessing (Bloom’s Taxonomy)? Is it aligned with the course objectives?

(E) Conclude and preview
- Summarize main points and preview next lesson
(F) Create a realistic timeline!
  • Estimate how much time things will take
  • Be flexible: have extra material / be ready to cut

(G) Reflect on your lesson
  • After every lesson, take some time to think about what was effective/ineffective
    (no lesson is perfect and that’s okay!)

The Same Concept Still Apply to Teaching A Lab Class!

  • Still want to focus on what you want your students to walk out of the lab knowing!

  • While giving your intro and going through the concepts and procedures behind the lab, you can use any active learning techniques and vary the way in which you present

  • During the experiments, you can circulate and ask students WHY they’re performing certain steps