Planning Significant Learning Activities
By the end of this session, you will have:

✓ A clear understanding of the planning process for the in-class, pre-class, and post-class activities
✓ Seen examples of the planning process
✓ Developed an outline of one class period for your chosen course
✓ Planned significant learning activities as part of that lesson
✓ Considered suitable and post-class activities
Planning process

✓ Divide basic and advanced learning outcomes (Talbert Step 4)
✓ Develop outline of lesson plan (TS 3)
✓ Plan detailed in-class activities and adjust outline of lesson plan as needed (timing, etc.) (TS 5)
✓ Plan pre-class activities (TS 6)
✓ Plan post-class activities (TS 7)
Example – Quadratic Formula (QF)

Basic LOs

1. State the quadratic formula.
2. Use the quadratic formula to find the roots of a second-degree polynomial.

Advanced LOs

3. State the conditions under which a second-degree polynomial will have two real roots, one repeated (real) root, or two complex roots.
4. Apply the quadratic formula to solve a real-world problem.
Make a Lesson Outline

• Identify the **type of activities** that you plan to do during the class period

✧ **Opening minutes**: Assess pre-class prep (e.g., entry ticket or clicker questions), ask compelling question, respond to submissions

✧ **Main Activities** to support advanced LOs

✧ **Closing minutes**: Summarize, reflect (e.g., one-minute paper, muddiest point, what was learned)
**Example – Initial QF Lesson Outline**

**Class time 60 minutes**

- **LO 3**: State conditions for 0, 1 or 2 solutions
- **LO 4**: Applications of quadratic formula

<table>
<thead>
<tr>
<th>Short Description of Activity</th>
<th>Purpose (or LO with which it is associated)</th>
<th>Estimated time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow for questions; comments about the quiz answers (if needed)</td>
<td>Accountability for individual space activities; compelling question as guide for what is to come</td>
<td>10</td>
</tr>
<tr>
<td>LO 3: Think-Pair Share with guided questions</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>LO 4: Work on multiple applications in different groups</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>Muddiest point</td>
<td>Summarize, synthesize, solicit questions</td>
<td>5</td>
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</tbody>
</table>
Lesson Outline – You try it! (5 mins)

Based on the LOs of YOUR course:

• Think about activities for the three parts of class, using the active learning techniques you have identified in your workshop preparation or in the Active Learning session

• Note what pre-class activities would support the in-class activities without going in to detail

• Assign times to the in-class activities without planning them out in detail.
Share (5 mins)

Share your activities with the workshop participants

• Opening minutes:

• Main Activities:

• Closing minutes
In-class Activities – You try it! (15 min)

• Use **15 minutes** to develop a detailed description of a single activity of YOUR class. Use the activity planning worksheets to do so. Be as detailed as possible.
Feedback (15 min)

• Find a partner, a flip buddy, either in a closely related discipline or a different discipline, but somebody from your institution.

• Exchange your activity worksheets. Use 5 - 10 minutes to give written feedback on your partner’s activity worksheets (and vice versa).

• Use 5 minutes to discuss the most important issues you found in each other’s activities. Exchange notes.
Written Feedback & Share

Give written feedback using the following questions (5-10 minutes), then discuss the most significant points (5 mins). Afterwards exchange notes.

✓ Are the class activities aligned with the stated LOs?
✓ Are there parts of the activities that seem to be
  - Too simple (would better fit in pre-class)?
  - Too advanced (would better be done after class)?
  - Redundant in a non-productive way?
✓ Can activities be completed in the allotted time?
✓ Are all the necessary pieces in place (prep materials, etc.)?

Be constructive and respectful!
Next Steps

In-class activities
• Based on the feedback, you may have to adjust your outline
• Some of the activities may have to be completed after class because you are running out of time (it **ALWAYS takes longer** than you think it will)
• Maybe you need to rethink/modify your activities

Pre-class Activities
• To support basic LOs
• To prepare for in-class activities
Example – QF Pre-class Activities

Basic LOs

1. State the quadratic formula.
2. Use the quadratic formula to find the roots of a second-degree polynomial.

What are relevant pre-class activities?

✓ Make sure there is meaningful connection between pre-class and in-class activities
Possible Post-class Activities

• Solidify the practice done in class via a formal write-up to be turned in

• Extend some ideas from in-class practice as a project or service learning component (higher Bloom’s taxonomy level)

• Give students more practice with skills and lower-level tasks of Bloom’s taxonomy

• Think “Quality over quantity”
Post-class Activities - **WARNING:**

- Do not just use your current homework assignments
- Students have the same limited time available outside of class that they had in your non-flipped class.
- Adding the pre-class work without reducing the post-class work-time will result in students being overwhelmed, with decreasing motivation
- Combined out-of-class worktime (for average student) should be 2-3 times the class time. Adjust your activities/assignments accordingly
Post-class Activities – Your try!

For **YOUR** chosen course,

- Identify the post-class activities
- Determine what purpose they should serve
- Check whether they tie in with the in-class activities and the basic and/or advanced learning objectives
- Identify how you would assess whether students have mastered the advanced LOs through the in-class activities or the post-class work
- Consider writing a guided document for Post-class as well, or fold that into the Pre-class guided practice document
Now It’s YOUR Time to PLAN