Objectives: Session participants will learn how to...

- Practice effective teaching strategies for office hours
- Coordinate office hour content with the professor
- Maximize office hour attendance with clear planning

Introduction

Goals of Office Hours

- Provide guidance and support to help students understand course material and solve homework problems
- Create a welcoming environment where students feel comfortable asking questions

Activity 1: Memorable experiences

In groups of 3-4, first introduce yourselves quickly. Then, share your best or the most difficult experiences with office hours (e.g., OH were helpful, intimidating, waste of time, etc.).

Teaching Strategies

Activity 2: Role playing

In a group of 3-4 people, select the person whose name comes first alphabetically. They will choose one of the four provided example problems and act as a mock TA during an OH attended by the other group members. Groups will report out what went well and what did not.

Question 1: Consider a steel plate with a hole at the center. How will the circle change after the plate is heated?

Question 2: Consider a circle with radius \( r \). Find its area by calculus.

Question 3: Consider a circle with radius \( r \). How many rotations does it undergo if it rolls a distance \( x \)?

Question 4: You want to enjoy a warm cup of coffee after your meeting finishes in 10 minutes. It just finished brewing and you are trying to decide if you should add the cream now or after. What choice will give you the hottest coffee?
Examples of ineffective teaching strategies
“This is trivial!” “The answer is 0. Figure out the process.” “Use Eq. (2), (5), and (15) to solve this problem.”

Effective Teaching Strategies
• **Scaffolding**
  Graphic organizers, connect to background knowledge, intentional small group/partner work, sentence structures/starters (I know ____ because ____), think aloud, hints, explanations.
  
  *Ex: How might you break the problem into small steps?*
  *Ex: Please tell me how you got from step one to step two?*

• **Ask questions** - remember, understand, apply, analyze, evaluate and create.
  *Ex: “Can you think of another way to write this equation?”*
  *Ex: What are some possible ways you might go about solving this problem?*

• **Transparency**
  *Ex: In this instance, we apply theory “A” instead of theory “B” because ___.

• **Self-Assessment** – students’ facial expressions, hw/exam results, questions asked by students, survey questions asked by you, course evaluation from at the end of the term

Coordinating with Professors

**Activity 3: Brainstorming**
In groups of 3-4 read through one of the example situations and brainstorm ways to address the problem. Afterwards we will come together as a larger group to discuss.

• Situation I
  You find the homework and midterm are simpler than the lecture, and no one attends the office hour. What would you do to improve this situation?

• Situation II
  You find the lecture materials and homework difficult for most students. Students struggle on almost every questions and you spend more than 16+ hours a week on TA work. What would you do to improve this situation?

• Situation III
  The professor has assigned homework problems that have little to do with the material covered in lecture, leaving the students lost. How do you structure your OH to help guide students?

• Situation IV
  The professor has assigned a very open ended homework problem, with many possible solutions depending on which assumptions are made. This professor also has not provided you, the TA, with any solutions or guidance. How do you run your office hours to help structure your students approach?
Coordinating with professors

- TAs generally understand their roles in relation to lesson objectives, but have poor communication with professors. In general, teachers receive little feedback on the students’ needs/learning within or after their lessons.

- **Advantages of Proper Coordination**
  - TAs are equipped with the skills to support learning for pupils across the attainment range, consistent with teacher’s intention.
  - TAs’ skills are understood and maximized by the lecturer.
  - Improves the consistency of lecture materials and homework.
  - Lecturers get timely response and feedback about teaching.

- **Tips**
  - Ask the lecturer about their expectation for OH
  - Consistently update/give feedback to the lecturer
  - Attend lectures if you are unfamiliar with the lecture materials.
  - Keep your notation consistent with the lecture notes
  - Solve the HW problems in advance

Logistics

- **Time** – Consider the schedules of the TAs, students, and the HW due dates. You may create a poll in the first week. Personal appointments can be scheduled by email.

- **Location** – your office, courtyard, group study room in the library, or the classroom

- **Increase Attendance**
  - Advertise your OH in the lecture.
  - Return graded work during your office hours.
  - Consider holding a “mini recitation” to cover key concepts.
  - Hold review sessions before exams