

# Lead a Successful Office Hours

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Objectives: Session participants will be able to...

- Learn effective teaching strategies and practice implementing in office hours
  - Discuss coordination with professors
  - Learn how to set up office hours most effectively to maximize attendance
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## 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 Strategy

### Activity 2 (a): 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.*

*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?" is a create question.*

*Ex: What are some possible ways you might go about solving this problem?*

- **Transparency**

*Ex: You will apply this theory to gain deep insight of materials' properties.*

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

### Activity 2(b): Role playing

*Repeat this activity and try to implement the effective teaching strategies discussed.*

## Coordinate 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?

### Coordinate with professor

- TA generally understand their roles in relation to lesson objectives, but have poor communication with professors. Teachers receive little feedback on student's need/learning within or after lessons.
- **Advantage**

- TAs are equipped with the skills to support learning for pupils across the attainment range, consistent with teachers' intention.
- TAs' skills are understood and maximized by the lecturer.
- Improve the consistency of lecture materials and homework.
- Lecturers get the timely response and feedback about teaching.
- **Tips**
  - Ask the lecturer about their expectation for OH
  - Constant update/feedback to the lecturer
  - Attend lectures if you are unfamiliar with lecture materials.
  - Keep your notation consistent with lecture notes
  - Solve HW problems in advance

## Logistics

- **Time** – Consider TA, students, and HW due day. You may create a poll in the first week. Personal appointment can be scheduled by email.
- **Location** – your office, courtyard, group study room in the library, or the classroom ([https://amt.caltech.edu/resources/room\\_reserve](https://amt.caltech.edu/resources/room_reserve))
- **Increase Attendance**
  - Advertise your OH in the lecture.
  - Return graded work during your office hours.
  - Consider holding a “mini recitation” to cover key concepts.
  - Review sessions before exams