

## Teaching Practice for Lecturing and Presenting in Engineering

This course will offer you an intense opportunity to practice teaching and to get detailed feedback on your teaching. The practice will come in the form of 5 short lessons on specific topics. On Days 1-4, you will teach your “mini” lesson to a group of 4-5 other students and on Day 5, you will have a group of 10 participants for your “maxi” lesson.

The feedback you receive on your teaching will be more valuable to you if you are well prepared.

A lesson is a short teaching sequence, like solving an exercise session or introducing a lab experiment. See the guidelines below about topics and duration for each day. Choose a subject which is important or interesting to you, but please do keep in mind the varied backgrounds of the other participants.

While it can be useful to already have a topic in mind for each day, we suggest that you prepare only first day’s teaching sequence now. For each lesson, *you should incorporate ideas and strategies seen previous day or from the readings, as well as the feedback you received and your personal reflections.*

Ultimately what you get out of this class, far exceeding the importance of your grade, will come from teaching practice and your peers’ feedback on these short lessons.

| Day | Duration   | Topic                                                                                                                                                        | Requirements<br><b>***Use lesson planners</b>                                                                      |
|-----|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| 1   | 5 minutes  | Motivation + potential outcomes of your thesis project                                                                                                       | Be sure to include a lead-in, key message and summary.                                                             |
| 2   | 10 minutes | Resolution of an exercise, problem solving activity, etc.                                                                                                    | Use of the board or flipchart (no PowerPoint or slides).<br>Use of questions/interactivity, plus lead-in + summary |
| 3   | 10 minutes | Cutting edge experimental technique or procedure, which is cognitively challenging to understand (ie difficult concept, rather than overwhelmingly detailed) | LOAFS structure                                                                                                    |
| 4   | 10 minutes | Quantitative data FOR A GENERAL PUBLIC AUDIENCE                                                                                                              | Use of visualisation/diagram + LOAFS structure                                                                     |
| 5   | 12 minutes | RE-DO a previous lesson<br>- Incorporate peer feedback and self-reflection<br>- For an INTRODUCTORY ENGINEERING AUDIENCE                                     | LOAFS structure                                                                                                    |

*See the following pages for the Day 1 lesson planner and 2 sample lesson plans*

