ICO Online Course:
Transforming Lectures into Effective Teaching Interventions

Goal
Help teachers transform lectures into more effective learning interventions.

Rationale
Being an expert in a clinical or a surgical topic does not translate into being a good teacher. To become a good teacher we need a theoretical framework that will help us understand and apply teaching principles and strategies to teaching.

Traditional lectures have ranked very low when measuring their effectiveness.

Objectives
By the end of the course, participants will be able to:

- Apply multimedia and adult learning principles when preparing lectures.
- Use different approaches when teaching facts, concepts, procedures, processes and principles.
- Generate knowledge and critical thinking interactions to enhance learning during lectures.
- Use free or low cost software to assist this interactivity
- "Flip the classroom" by recording and sharing online lectures to make a better use of classroom time.

Target Audience
Medical teachers who want to improve their teaching skills when presenting lectures.

Learning Activities
The course will be an online, tutor led and will include:

- Recorded audiovisual lectures
- Selected readings
- Discussion forums
- Hands on sections of course development
- Hands on software training

Time Requirements
The course will require 2 to 3 hours a week, depending on the participant's previous experience. The duration of the course is 8 weeks.
Module 1: Introduction and Tutorials
  Goal: Introduce the course and practice the tools we will use.

Module 2: Theory and Application of Adult Learning Principles
  Goal: To prepare medical teachers to be able to apply adult learning principles for developing more effective teaching and learning experiences.

  Objectives: Participants will be able to
  • Describe and apply principles that guide adult learning.
  • Describe and apply principles of teaching that will help adult learners learn.

Module 3: Planning a Course
  Goal: To help medical teachers develop a stepwise process to develop a course.

  Objectives: Participants will be able to
  • Write goals and objectives that will help develop effective learning interventions.
  • Organize the content in building blocks, with their own particular objectives to facilitate construction of the course.
  • Use the concept of "chunking" for organizing the content in effective learning segments.

Module 4: Building Course Content
  Goal: To help medical teachers identify adequate teaching strategies for teaching knowledge (facts and concepts), skills (procedures), values and attitudes (principles).

  Objectives: Participants will be able to choose and apply the best strategies and media for teaching
  • Facts
  • Concepts
  • Procedures
  • Processes
  • Principles

Module 5: Principles for Building Multimedia Teaching Activities
  Goal: To prepare medical teachers to be able to apply principles for building multimedia teaching activities.

  Objectives: Participants will be able to
  • Describe and apply the following principles to their teaching interventions
    o Contiguity principle
    o Modality principle
    o Redundancy principle
    o Coherence principle
    o Multimedia principle
  • Evaluate teaching interventions prepared by others, and identify improvement opportunities applying the same principles.
Module 6: Generating Interactivity With Open Ended & Multiple Choice Questions

Goal: To make learners play an active role in lectures

Objectives: Participants will be able to develop well-structured open ended and multiple-choice questions to stimulate learning.

Module 7: Tools for Making Lectures Interactive

Goal: To train medical teachers in the use of tools for developing interactive teaching activities.

Objectives: Participants will be able to
- Use "Socrative" and other software to generate interactivity in their face-to-face lectures.

Module 8: Putting It All Together

Goal: Wrap up the course