

Problem-Based-Learning (PBL)

Proposal for the organization of the working-sessions

Sessions and Steps		Tasks
Session A	0 10 min	Introduction <ul style="list-style-type: none"> • Distribution of the subjects • Short presentation of the agenda, the contents and the objectives of the PBL sessions devoted to solve a problem in Nonlinear Optics.
	1 10 min	Review the document: <ul style="list-style-type: none"> • Read the different contents of the document
	2 10 min	Understand the issues and clarify the problem: <ul style="list-style-type: none"> • Which are the issues addressed within the problem? • What are the problem deliverable(s) ?
	3 20 min	Possible avenues/ways to address the problem (collective contribution) : <ul style="list-style-type: none"> • List the relevant questions/issues • List the simplifications, assumptions... that can help in carrying out a first analysis of the problem • Among the group: review the state of knowledge and the knowledge to be acquired • List the possible avenues and outcomes to address the problem
	4 10 min	Identify the learning outcomes: <ul style="list-style-type: none"> • Identify the learning issues raised by the problem • Determine the question(s) you should be able to address and the knowledge you should have been acquired at the end • List some acquired skills
	5 20 min	Start to address the problem: <ul style="list-style-type: none"> • Discuss about the methodology you will use to address the problem • Collect the resources, data, required to address the problem • Calculate order of magnitudes • Derive some solutions
	6 10 min	To-do list for the next session: <ul style="list-style-type: none"> • Identify the information/knowledge contents required to confirm or un-validate the possible avenues listed in step 3 • List the tasks and outcomes to be prepared by each group member for the next session
Session B Ind. work	7 1 to 2 hours	Individual work: <ul style="list-style-type: none"> • Each group member works (individually) on his/her tasks and prepares the outcomes/materials to be shared with the group during the Session C
Session C	8 1 to 2 hours	Collect and validate the learning outcomes, solutions and deliverables: <ul style="list-style-type: none"> • Share and pool the learning outcomes, resources... acquired/prepared individually during the session B • Review/examine the proposed responses or individual inputs with the questions listed during the session A • Address the questions raised by the problem with justified solutions/answers • Prepare the deliverable(s)