Introducing Science to undergraduate students

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The knowledge of scientific method provides stimulus and development of critical thinking and logical analysis of information besides the training of continuous formulation of hypothesis to be applied in formal scientific issues as well as in everyday facts. The scientific education, useful for all people, is indispensable for the experimental science students. Aiming at the possibility to offer a systematic learning of the scientific principles, we developed a undergraduate course designed to approximate the students to the procedures of scientific production and publication. The course was developed in a 40 hours, containing two modules: I. Introducing Scientific Articles (papers) and II. Writing Research Project. The first module deals with: (1) the difference between scientific knowledge and common sense; (2) scientific methodology; (3) scientific publishing categories; (4) logical principles; (5) deduction and induction approach and (6) paper analysis. The second module includes (1) selection of problem to be solved by experimental procedures; (2) bibliography revision; (3) support agencies; (4) project writing and presentation and (5) critical analysis of experimental results. The course used a Collaborative Learning strategy with each topic being developed through activities performed by the students. Qualitative and quantitative (through Likert questionnaires) evaluation were carried out in each step of the course, the results showing great appreciation by the students. This is also the opinion of the staff responsible for the planning and development of the course, which is now in its second and improved version.