Author Guidelines for the LABORATORY Feature

The laboratory experience in chemical engineering education has long been an integral part of our curricula. CEE encourages the submission of manuscripts describing innovations in the laboratory ranging from large-scale unit operations experiments to demonstrations appropriate for the classroom. The following guidelines are offered to assist authors in the preparation of manuscripts that are informative to our readership. These are only suggestions, based on the comments of previous reviewers; authors should use their own judgment in presenting their experiences. A set of general guidelines and advice to the author can be found at our website: <http://che.ufl.edu/~cee/>.

- Manuscripts should describe the results of original and laboratory-tested ideas. The ideas should be broadly applicable and described in sufficient detail to allow and motivate others to adapt the ideas to their own curricula. It is noted that the readership of CEE is largely faculty and instructors. Manuscripts must contain an abstract and often include an Introduction, Literature Review, Laboratory Description, Data Analysis, Summary of Experiences, Assessment, Conclusions, and References.

  • An Introduction should establish the context of the laboratory experience (e.g., relation to curriculum, review of literature), state the learning objectives, and describe the rationale and approach.
  • The Literature Review discusses appropriate technical and pedagogical articles and books related to the experiment.
  • The Laboratory Description section should describe the experiment in sufficient detail to allow the reader to judge the scope of effort required to implement a similar experiment on his or her campus. Schematic diagrams or photos, cost information, and references to previous publications and Web sites, etc., are usually of benefit. Issues related to safety should be addressed as well as any special operating procedures.
  • If appropriate, a Data Analysis section should be included that concisely describes the method of data analysis. Recognizing that the audience is primarily faculty, the description of the underlying theory should be referenced or brief. The purpose of this section is to communicate to the reader specific student-learning opportunities (e.g., treatment of reaction-rate data in a temperature range that includes two mechanisms).
  • The purpose of the Summary of Experiences section is to convey the results of laboratory or classroom testing. The section can enumerate, for example, best practices, pitfalls, student survey results, or anecdotal material.
  • The purpose of the Assessment section is to show proof that the students met the specified outcomes of the experiment.
  • A concise statement of the Conclusions (as opposed to a summary) of your experiences should be the last section of the paper prior to listing References.