Optimization-Based Modeling and Design of Electronic Circuits

Guidelines for the Final Project Presentation and Written Report

Dr. J. E. Rayas-Sánchez
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Purposes

As stated in the course syllabus, a learning objective for the students is to realize a final project on a subject related to the most advanced topics covered in the course, write a report and make a technical presentation about it.

According to abundant evidence, employers report that an individual's ability to demonstrate effective communication in the workplace is among the top skills they seek in job candidates. Practice in communicating an oral and written message is not only a good preparation for employment, but also fundamental to the educational experience. This technical presentation aims not only at improving student's communication skills, but also at practicing the ability of self-conducted learning.

Guidelines for the Oral Presentation

In preparing their oral presentation students should keep in mind the following:

a) Adapt the contents to the audience (graduate students with good background on the subject)
b) Constrain the presentation to a 15-17 minute talk, followed by a 5-7 minute period for questions and answers (20-25 minutes maximum in total).
c) Define an outline for the presentation
d) Structure the presentation by an introduction, body and conclusions
e) Use oral transitions (connectors) to make the presentation easy to follow
f) Plan the presentation, but do not memorize it (should be planned yet conversational)
g) Anticipate questions and be prepared to answer them
h) Get ready your power-point presentation well ahead the start of the presentation
i) Consider the grading criteria shown in Fig. 1 for further recommendations

Grading Criteria for the Oral Presentation

The oral presentations will be evaluated by the instructor and by the audience (classmates), immediately after the presentation. Fig. 1 shows the grading criteria that will be used for evaluating the oral presentations, which were adapted from [1].

Guidelines for the Written Report

Student have to send by the corresponding deadline an electronic file (word or pdf formats only) of his written report to the instructor. This report is intended as notes for the topic to be covered. The report should not consist of handouts of the presentation (copies of the slides). It should describe in a tutorial and brief manner the fundamental contents of the presentation. The report should not be read during the presentation. In preparing the report the speaker should keep in mind the grading criteria shown in Fig. 2.

Evaluation of the Oral Presentation

Evaluator's name:_____   Date:_____
Title of the presentation:_____   Grade:_____
_____
_____

Introduction (15 points) _____
The speaker gained audience's attention and interest
The speaker stated the purpose or central idea of his work
The speaker gave a preview of the rest of the presentation (outline, etc.)

Body (40 points) _____
The main points were clearly and accurately presented
The main points were developed with appropriate detail and support
The order of the points was logical and easy to follow
The speaker tailored the message to audience interests
The speaker used language and examples appropriate to audience

Conclusions (15 points) _____
The speaker prepared listeners to the end of the presentation
The ending summarized and pulled together the main points
The ending reinforced the central idea of the presentation

Delivery (30 points) _____
The presentation was planned yet conversational in manner
The speaker had frequent eye contact with listeners
The use of oral transitions made the presentation easy to follow
The use of notes, if any, was comfortable and unobtrusive
The speech rate, clarity, and volume made the speech easy to understand
The use of gestures reinforced the verbal message
The slides were easy to read, comfortable and effective
The speech was given within the range of expected duration in time

Comments_____
_____
_____

Fig. 1. Grading criteria for the oral presentation.

Grading Criteria for the Written Report

The written reports will be evaluated by the instructor only. Fig. 2 shows the grading criteria that will be used for evaluating the written reports. Notice that the written report must be 5 to 10 pages long (Matlab code can be placed in an appendix). The proposed criteria for assessing the written report are inspired in the work of Hobson [2].

Classmate's Participation

As mentioned before, classmates play an important role in the evaluation process. They should evaluate the oral presentations of each classmate and hand in at the end of the presentations the corresponding evaluation forms. Their participation in this process will be seriously considered by the instructor in assigning their overall participation in the course.

Evaluation of the Written Report

Introduction (5 points) _____
The report has a brief introduction
The introduction explains the importance of the subject
The introduction outlines the report's contents

Theory (30 points) _____
Author provides appropriate level of basic and overview information
Author provides detailed technical information about the main points
The analyses are technically correct and sufficiently accurate
Author identifies and explains the issues of central interest
The report does not leave out fundamental points related to the subject

Example(s) (40 points) _____
Author illustrates the main points with at least one interesting example
Example(s) is(are) relevant, clear and easy to follow
Example(s) is(are) supported with convincing computer simulations

Conclusions (5 points) _____
The conclusions are objective
The conclusions summarize and pull together the main points

Bibliography (5 points) _____
The report includes useful references and other resources

Format (15 points) _____
The report is clean and well organized
The style is concise and clear
The figures and plots are clear and readable
The report is free of grammatical and typographical errors
The report is between 5 and 10 pages long (excluding appendix)

Comments_____
_____
_____

Fig. 2. Grading criteria for the written report.

References

[1]   B. L. Quigley, "Designing and grading oral communication assignments," *New Directions for Teaching and Learning*, num. 74, Summer 1998, pp. 41-49.

[2]   E. H. Hobson, "Designing and grading written assignments," *New Directions for Teaching and Learning*, num. 74, Summer 1998, pp. 51-57.