# Polytechnique Montréal CAP7001E Ensuring a successful doctorate

Instructor: Michel Perrier 1 credit, Fall 2015

## Research proposal

**Objectives of this assignment**

* Writing a first version of your research proposal.
* Learning to carry out a critical analysis of research proposals in engineering.
* Using feedback to improve your research proposal.

**Part I: Writing the first version of the proposal**

*Due date (submitted electronically on the Moodle site):*

* *Thursday, November 26th 2015 at 13h00*

The first part of this assignment consists in writing a short version of your research proposal (maximum three pages of text). If appropriate, you can include a schematic on a fourth page. The objective is to help you start working on the proposal that you will defend during your preliminary exam. You will have the opportunity to work again on that proposal in CAP7015. The proposal should be written in English.

Please use the following headings as a guide:

* Title
* Summary
* Trigger
* Frontier of knowledge
* Question / Hypothesis / Objectives (based on the terminology used in your field)
* Strategy (sub-objectives and methodology)
* Expected results
* Originality
* Anticipated impact
* Anticipated risks and approach to manage/mitigate them
* Required resources (the main ones)
* Proposed timeline

**Part II: Critical analysis of research proposals**

*Due date (submitted electronically on the Moodle site):*

* *Thursday, December 3rd 2015, at 13h00*

For the second part of this assignment, you will have to evaluate the research proposals of three of your colleagues. The proposals will be assigned randomly.

For each proposal, fill the evaluation questionnaire “Evaluation of a research proposal” presented in the appendix and also available as a separate form on the Moodle site. In writing your report, please bear in mind that the objective is to help the author of the proposal improve his/her work. Your comments should be both critical and constructive, and they should be written as clearly as possible in order to avoid any ambiguity in their interpretation.

You should make sure to specifically address the originality and the potential significance of the project given the importance of these two criteria.

**Part III: Preparing and submitting the revised version of the proposal**

*Due date (submitted electronically on the Moodle site):*

* *Monday, December 14th 2015, at 13h00*

Please revise your proposal based on the feedback you received. You must submit a single PDF document that includes, in order, the following:

* The revised proposal (maximum three pages and a schematic, if appropriate)
* A concise statement explaining the changes made to the proposal as a result of the feedback received (no more than one page of text)
* The original proposal
* The two anonymous reports

Note: The instructor will provide detailed feedback on the revised version of the proposal. Grading will be based on his evaluation of the quality of the documents produced at all stages of the process (the proposals and the reports).