

KMB806 Literature review – instructions

One of your responsibilities in your PhD studies is to **write a literature review during your first year of study**. In the Integrative Biology program, we have agreed on the form of the literature review, which should include elements of a project proposal. We believe that it is essential that during the first year the student should get familiar with the problems of his/her PhD project and be able to define the project comprehensively; in simple terms, he/she should understand why he/she is doing specific experiments even in the long term, which should prevent him/her from merely performing partial tasks assigned by the supervisor. And he/she should demonstrate this by being able to write a text in which:

- introduces the reader to the problems of his/her project in a broader context, is able to identify literary sources, work critically with them and write them up in a focused simple text that is able to explain to a non-specialist reader the reasons for working on a given PhD project
- clearly articulates the biological questions of his/her project
- proposes experimental approaches that can answer the biological questions raised

Achieving this ability during the first critical year of study should of course be a concern of the student's supervisor as well, it should come from their interaction with each other and it is one of the important roles of the supervisor. The ability to write such a text will then be assessed by members of the Program Board. Please be careful that the introduction is not just a list of literature that is in whatever way related to your PhD project and it is not obvious why you are actually including this information. You need to select and assemble meaningful information into a logical text, formulate it in your own words in a new context, do not just re-write selected extracts from the original literature. Write your own text, into which the aims of the project can then be set so that the non-specialist reader understands what the aims are based on, what the current state of knowledge is on the subject. Imagine yourself as an evaluator of such a project, would you convince yourself that it makes sense to spend considerable funds on such a project, have you justified it sufficiently and clearly, are your approaches appropriate?

The text should be as follows:

1. Introduction - selective focused review of scientific sources relevant to the PhD project - max. 4 pages (very limited space, so please be focused).

2. Project goals - may have sub-goals and may be explained in more detail - typically one goal is stated in one sentence and there may be a short paragraph with further explanation. Typically ½ to 1 page, or it can be just bullet points with goals. (We understand that the goals will evolve and may change significantly during the course of your PhD project)

3. Methodological approaches proposed to address the goals - no need for methodological details, but rather describe the logic and principles of the proposed approaches and how they will help answer the project questions. Typically 2-3 pages.

These 3 sections are a maximum of **7 pages in total**. Text must be written in a standard font (Times, Arial, Calibri, or similar), size no smaller than 11 pt, single spaced. Figures and tables inserted in the text count towards the page limit.

4. Properly cited reference list - choose a typical citation format in the journal you would like to publish your work in someday and learn how to use citation tools.

(This text can serve as a great resource for writing a real grant proposal, for example, within GAJU)

WHEN TO SUBMIT: During the second semester of your degree, enroll in KMB806 and submit your paper no later than mid-January (if your second semester is the winter semester) or mid-August (if your second semester is the summer semester) so that the program board has time to read it and possibly return it for revision.