

Guidelines for the final project report and presentations

Final Project Report

Style: Your final project report should essentially read like a research paper. It should be clear and concise, and describe your contributions in the context of the broader literature.

Length: We expect most reports to be **between 8 and 12 pages**. We impose **a hard limit of 15 pages** (single spaced, 10pt font, 1-inch margins all around), but you should try to keep your report within the 8-12 range. As with most conferences and journals, you have to make important decisions as to what to include, and that's part of the skillset needed for writing a solid paper. If you absolutely need to include additional graphs that are supporting your results, you can do so in an optional appendix. **Contents:** You should structure your report around your key contributions, obviously, but make sure you include the following information:

Abstract: A 300-500 word summary of the problem statement and its challenge, the state of the art in the field, your approach, your results (this is the most important part, of course), and the broader impact of your contributions.

Background: A brief summary (1000 words max) of the problem, the current state of the field and existing literature, situating your work in the context of the more general area of research, and clearly stating how it differs from previous approaches, or from your previous work and other undertakings.

Results and discussion (the bulk of your report): While some conferences/journals ask you to separate your results and their discussion, we prefer a single section describing for each aspect of your project, a summary of the challenge undertaken, a detailed description of the method used, and a clear description of the results obtained. With these descriptions, you can intersperse discussion on the rationale of the methods used, and also comment on the interpretation of the results you found. Be precise about your methods, and describe clearly any existing tools you used, and any new methods you developed (and their availability, if applicable). Be critical about your own results and findings, and think about alternative interpretations of your findings. Think about alternative approaches you would have considered if time permitted, or if you were to start anew.

Future goals (a few paragraphs): Because this is a class project, we want you to think hard not only about what you have accomplished in the period of the term, but also where you want to take this project going forward. This is a great place to describe your plans for publication of this work, what else you would like to include before it is ready for prime-time, whether it's a master's thesis, a Nature paper, or your next book. We like to see projects flourish even after the class ends, and great new directions are testament of great projects.

Project Summary of Process

Comparison with original and revised proposal: You also must comment on how the final report compares to what you proposed in the original and revised proposals, in one or two paragraphs. Did you address all reviewer's concerns and how, did you manage to accomplish all your stated goals, which ones failed and why, which were added and why, was your proposal overly ambitious or vague or short. Explain the differences, what shaped the project away from the original aims, and could you have foreseen that earlier, or was it reflected in the reviewer comments.

Commentary on your experience (a couple of paragraphs): We want you to also go back and think critically about your project, and what advice you would give to yourself if you were to start over. Were the datasets well-suited for the approach, did you manage your time well between doing and writing, or between different aims of your project, what aspect of your project proved the most challenging / the most rewarding, what part of the project did you enjoy the most / the least.

Commentary on the peer-review process (one paragraph): How did the review process help shape your proposal? Did you find the feedback from other student's useful/consistent/constructive? Having completed your project and looking back at the comments you received on your proposal, do you feel that the reviews were useful? Did they help identify and avoid potential pitfalls or problems? Or did they perhaps require additional work which in the end proved misleading?

Division of labor (1 paragraph): For people working in groups, describe the contributions of each of the authors. This is standard in most scientific journals nowadays, and you should be completely honest about it, and as precise as possible. You can also comment on the good and the bad aspects of the collaboration, and what advice you would give yourself were you to start over.

Final report due date

The written reports are due **Wednesday, December 13th at 8pm.** (This is after your presentations to give you time to incorporate any feedback from the presentations into your report).

Final report submission

Submit a single PDF document electronically to Ariel (i.e. email to amlangev@bu.edu). Name your file: "LastnameFirstname_report.pdf" (if working in teams, include all names, separated by underscores).

Oral presentation

In addition to the written report, an oral presentation of your project in front of the staff and the rest of the class will also be part of your evaluation. You will be evaluated on your ability to clearly communicate your findings in front of a scientific audience in computational biology (even if they're not experts in the particular area of your project), on the clarity with which you communicate your contributions, your ability to manage your time well and finish on time, and of course the overall quality of the work and the presentation.

All presentations will be **12 minutes long: 10 minutes for a PowerPoint slide presentation and 2 minutes at the end for questions.** We will be very strict and stop you short if you run over, so manage your time wisely and do not leave the best part for the last minute.

Oral presentation times

Final presentations will be on **Thursday, December 7 (CGS 527 from 1:30pm-3:30pm) and Friday, December 8 (EPC 207 from 10am-12pm).**

Slide Submission

Please make your slides available in PDF or PowerPoint and make sure they are compatible on a laptop PC (print them to PDF if you do not have a PC). Please name this file "LastnameFirstname_slides.ppt" (or pdf).

Both the slides and the handouts are due by **Thursday, December 7 at 9am.**