

# Organization of GBIO0009 Homework Assignments

## Topics in Bioinformatics

- Form groups and select a “type of homework”, as instructed in class. The same group holds for all homework assignments!
- **Note that different rules and expectations apply for literature-based or programming-based assignments**

### **Type 1: Literature-based project**

This involves choosing a paper from the literature that extends or provides additional background on the material of the course (chapter) and then summarizing the paper, its objectives, results.

When drafting your slides, do not copy the paper, but show you have understood the main ideas of the paper and “discuss” the paper. Such a discussion could include thoughts on what was the key idea, strengths or weaknesses of the methods/experiments, comments on the writing, ways to extend the work, flaws in the argument/data/experiments, etc. Anything is fine, as long as it demonstrates some real thought.

A selection of papers will be provided, but if you have another interesting paper to discuss, please send your suggestion to the TA. The course instructors will then decide whether the paper is eligible or not.

### **Type 2: Computing project (with guiding questions)**

You will be given a data and a real-life bioinformatics data problem. Using software that will be explained in class (TA), you will be asked to solve the problem. Guiding questions and supporting documents will be presented to you, to help you in achieving this goal.

### **Format and report**

All assignments (Type 1/ Type 2) will be presented and discussed in class. Slides and slides presenting should be in English.

Only for Type 2 projects, a report is needed. This report reflects the process you adopted in solving the problem that was presented to you and should be no more than the equivalent of 5 single-spaced typed pages of text, excluding figures, tables and bibliography. It should contain an abstract (e.g., description of the problem), a methods part (e.g., how did you solve the problem), a results part (e.g., what are your findings) and a discussion part (e.g., how other people in the scientific community solve such a problem). If citations are made to other papers, there should be a bibliography! Only one report per group is needed.

### **Evaluation**

Homeworks count for 60% of your final score ... Opportunities will be created to discuss the homeworks (homework assignments) in class or in private.