

582670 Algorithms for Bioinformatics

Final Notes

09.10.2014

Exam: Practicalities

- ▶ The course exam is on Tue 21.10. at 09:00 in hall A111
 - ▶ 2.5 hours time
- ▶ The first separate exam is on Tue 02.12. at 16:00 in hall B123
 - ▶ This can also be taken as renewal exam where points from exercises are still valid! No need to choose, the better option is automatically selected for you.
 - ▶ 3.5 hours time
- ▶ No own papers.
- ▶ You will need student id card (or some other proof of identity)!
- ▶ You can answer in English or Finnish.
- ▶ Please verify the time and place a few days before the exam from the department web pages.

Exam: What to study?

- ▶ Material covered at the lectures!
- ▶ Take a look at some subjects studied in the study groups. If there are questions regarding subjects in the study groups, you will have a choice so that you can answer to a question about a subject you have studied yourself.
 - ▶ Example: Choose one of the (non-trivial) problems studied during the course (in study groups, lectures, or/and exercises) not related to the previous assignments above. Define the problem (input, output), explain how the problem is motivated by molecular biology, and describe an algorithm for the problem either simulating an example or by giving its pseudocode.

Exam: What kind of questions?

- ▶ The course exam has four questions, some might include subquestions (i.e. several questions that all require short answers)
- ▶ The separate exams have five questions.
- ▶ Short answers:
 - ▶ Example: Explain in one or two sentences what is the shortest superstring problem.
- ▶ Essay type questions:
 - ▶ Example: Define the Motif Finding and Median String problems and explain why they are actually the same problem. Describe briefly the idea of the branch-and-bound solution for solving the problem.
- ▶ Exercise type questions:
 - ▶ Simulate an algorithm
 - ▶ Design an algorithm
 - ▶ Prove something
 - ▶ ...

What next?

Period II:

- ▶ 58093 String Processing Algorithms (+ project) (5(+2) cr)
- ▶ 3996721 Microarrays and next generation sequencing (2cr)
<https://moodle.helsinki.fi/enrol/index.php?id=14330>

Spring 2015:

- ▶ 582483 Biological Sequence Analysis (+ project)
- ▶ 582715 Algorithms in Molecular Biology (+ project)
- ▶ 582487 Data Compression Techniques (+ project)
- ▶ 58315101 Seminar on Analysis and Assembly of Big Bioinformatics

Give feedback:

<https://ilmo.cs.helsinki.fi/kurssit/servlet/Valinta?kieli=en>