Advanced Algorithmics (6EAP)
MTAT.03.238
Organisation of course

Jaak Vilo
2010 Spring
Short CV (Jaak Vilo)

• Tallinna Reaalkool (2. Keskkool) 1984
• UTartu – Applied mathematics 1986-1991
• University of Helsinki: 1989/90; 1991-1999
• European Bioinformatics Institute 1999-2002
• PhD 2002, Univ. of Helsinki. /Pattern discovery/
• EGeen 2002 => Quretec 2006
• U. Tartu: docent, sen. researcher,
• Professor (from dec 2007)
• STACC
Research

• Bioinformatics

• Data mining, Machine Learning, Visualization, ...

• Practical algorithms

• Data management and analysis

http://biit.cs.ut.ee/
Goals

• To learn the main concepts and techniques of the algorithm design and analysis – the practical skills and basic theoretical basis

• To be able to choose, (design,) analyze and compare algorithms and data structures

• To learn to learn, use, solve, read, write, and present
• Lectures: Jaak Vilo
  – Wed. 14-16 (405)
  – Thu. 12-14 (405)

• Weekly practical sessions (homework):
  – Wed 12-14 Kristo Tammeoja (315)
  – Thu 14-16 Andrey Breslav (402)
Contacts:

- Jaak Vilo – prof. of bioinformatics vilo at ut.ee
- Andrey Breslav
- Kristo Tammeoja
- ati.algorithimcs@lists.ut.ee
Course and Grade

- Lectures
- Homework 25 + bonus points
- Project work 25
- Essay 10 (TBD)
- Exam 40

Total 100p
Homework

- **Most essential part** of the course
- Obligatory to perform minimum 50% tasks
- Presentations orally during the practicals
- Submissions over the web
Essay

- Will be an essay based on some article
- To be decided during the course
- Reading and writing skills
- A format of the scientific article (abstract, citations, etc)
Project

• A practical algorithm implementation development task plus analysis and comparisons of efficiency

• Presentation in form of a project report in scientific style

• Possibly presentations
Exam

• Will be based on questions similar to the homework assignments

• Knowledge of the basic principles of algorithms

• Creative use of the algorithms
Contact

• Lectures, practicals – active hours


• Email (vilo @ ut.ee)

• Office hour (Monday 3-4pm); room 327
  – Other times: knock on door or when door open

• Upon agreement
Questionnaire

• To assess the basic starting point and expectations before the course start

• Please fill in the form to the best of your ability as is during the next 30 minutes.