

Course evaluation: DN2258 Introduction to High-Performance Computations, 2008/09

- Course data**
- DN2258 Introduction to high-performance computations, 7.5 credits
 - August 2008, P1 2008/09
 - Personal: Michael Hanke (course leader) plus many invited lecturers
 - Teaching sessions
 - Lectures: 37 hours
 - Laborations: 42 hours
 - Students: 35 (additionally many PhD students and external students)
 - ECTS: Laboration 3.0, project work 4.5.
 - Prestationsgrad: 66% (per 2009-05-06)
 - Examinationsgrad: 43% (per 2009-05-06)

Aims The goal of this course is to give the student a basic introduction to the skills needed to utilize high performance computing resources for own projects.

Changes compared to the last year Besides the usual changes of adapting the course to more recent developments in high-performance computing and applications in frontier research the summerschool has been coordinated with the PRACE summerschool in Petascale Computing. The summerschool is an intrinsic part of NGSSC and KCSE.

Conclusions The following conclusions are based upon the answers to the course evaluation form, chats with the students, and experiences from the homework evaluation. They have been discussed with the program committee.

- General opinions**
- The course was considered to be very interesting and useful.
 - The audience of the course is rather heterogenous. Thus, the prerequisites are very different.
 - The teachers and lab assistents got very high estimations.
 - The social program was very highly estimated.
 - Only very few students finished the project work in time.

- More detailed**
- The coordination with the PRACE summerschool turned out to be a bad idea. While intended to give some insight into recent research, it was considered to specialised and not relevant to the topic.
 - Most of the lab sessions are well appreciated. However, a better feedback is necessary. (see the part on planned changes)

- As a compact course, the schedule is rather tight. Some lectures a little bit too condensed.
- The students' command of unix system commands and programming languages is occasionally not sufficient.

Teaching Two-weeks compact course. Lectures by guest lecturers (from KTH, Chalmers, Uppsala univ., abroad) and lab sessions

Examination Project report and computer labs

Kurslitterature • Lecture notes, copies of OH-slides

Prerequisites As indicated above, the audience is rather wide-spread. This means that the prerequisites are available in very different extent.

Grading There wasn't any problem.

Planned changes The summerschool will no longer be coordinated with any other event. Besides the usual update of the course related to advances in high-performance computing, the following actions will be taken:

- Each major lab session will be followed by a focused feedback.
- A Plan of Action has been adopted in order to increase the number of projects finished in time, in agreement with NGSSC.
- Lectures and lab sessions will be revised in order to provide more room for practical skills.
- Many detailed changes, e.g., OpenMP lab's revised.
- A panel discussion on the future of HPC is planned.