Course evaluation: DN2258 Introduction to High-Performance Computations, 2009/10

Course data
- DN2258 Introduction to high-performance computations, 7.5 credits
- August 2009, P1 2009/10
- Personal: Michael Hanke (course leader) plus many invited lecturers
- Teaching sessions
  - Lectures: 39 hours
  - Laborations: 40 hours
- Students: 24 (additionally many PhD students and external students, alltogether 78)
- ECTS: Laboration 3.0, project work 4.5.
- Prestationsgrad: 70% (per 2010-01-27)
- Examinationsgrad: 50% (per 2010-01-27)

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 As usual, the course has been adapted to more recent developments in high-performance computing and applications in frontier research the summerschool. The summerschool is an intrinsic part of NGSSC and KCSE. Additionally, a panel discussion has been organized which was open for all members of KTH. The changes proposed in the last year's evaluation have been realized.

Conclusions The following conclusions are based upon the answers to the course avaluation 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.
- Relatively few students finished the project work in time.

More detailed
- The number of participants was too large for this edition of the summerschool. It should be limited to approximately 60 students.

- 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

Kursliterature   • 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 Besides the usual update of the course related to advances in high-performance computing, the following actions will be taken:

- Revise the lab system.
- 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.
- Many students intend to use their own laptops. Access to WLAN should be provided.
- Standardized participation documents will be created.
- Only a few non-participants took part in the panel discussion.
- If a Saturday session is scheduled, make it efficient!
- Team building for project work will be streamlined.
- Many chages behind the scenes!