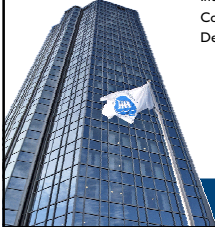



# Administration of Operating Systems

## DO2003



Introduction  
Course overview  
Demonstration of Ubuntu

Wecksten, Mattias 2009




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## Contact Information

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<http://hh.se/english/do2003>

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## Coarse Goals

- Knowledge and understanding
  - Find and make use of information about unfamiliar issues.
- Skills and abilities
  - Independently use topic relevant concepts and theories in the analysis of typical computer systems administration problems.
  - Effectively implement given administration solutions.
- Values and attitudes
  - Independently evaluate and criticize various known problem solutions.
  - Analyze known tasks from an ethical perspective.

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## Coarse Content

- Linux section deals with
  - Administration of users and systems
  - Introduction to the various administrative tools
  - Services in a modern operating system
  - Overview of computer security
  - Introduction to systems documentation
  - Assimilation of guides, manuals and other relevant documentation
  - Introduction to commonly used server software
- Script programming deals with
  - Syntax
  - Datatypes
  - Control structures
  - Regular expressions
  - Functions

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## Preliminary Schedule

- v. 45 Course introduction, history, licences, overview, installation, start/stop, Lab0
- v. 46 Shell, commands, text editors, file system, structures, Lab1
- v. 47 Users/groups, structures, software/devices, networking, file rights, backups, processes, priority, signals, diff/patch, remote administration, net shares, boot loader, scheduling tasks, basic security, Lab2
- v. 48 Server software, web, database, simple scripting, introduction to script languages, basic scripting, basic clauses and syntax, Lab3
- v. 49 Scripting, variables, arguments, evaluation, filtering, scripting advanced, functions, return values, exit codes, signals, recursion, libraries, Lab4
- v. 50 Start up, run levels, shell configuration, environment variables, file and print server, Lab 5
- v. 51 Security, ethics
- v. 52 Course break
- v. 01 Project submission

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## Written Assignments

- A. How to earn money from Open Source?
- B. To find help about Linux on the Internet.
- C. Three study questions about Linux.
- D. A script I would need.
- E. A script of my own.
- F. Ethics and administration.

The assignments A, B, D and F are supposed to be 1000-2000 characters long.

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## Laborations

- Labs are booked using the same kind of system as for the course TE2003.
  - Follow the link from the course page.
- For each laboration there will be a preparation part. Make sure you do that part **before** you come to the laboration.
  - **No preparation = No lab**
- After the laboration you must make sure that the assistant sign your receipt at the end of the lab PM.
  - **No receipt = No credit**

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## The Project

- The project will involve installation and set-up of a Linux system, including creation of supportive shell scripts.
- The project will be examined by handing in a written report.
  - Deadline in 0901
  - Submission via GenuineText
- The project groups will consist of 3 persons each.
- You should specify the details of the project and hand this in 7/12 at latest.
  - It is ok to pick one of my suggested topics.

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## Mandatory Tasks

- To get a final grade you must
  - Participate and get the grade "pass" in all 5 laborations.
  - Hand in a project specification with a time table.
  - Hand in a project report that gets the grade 3, 4 or 5.

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## Grade 3

- For grade 3, the student is able to:
  - Solve the project assignment by seeking out new information and apply this new knowledge.
  - Solving the project assignment in a way that is not obvious ineffective or unconventional.
  - Express themselves properly to support relevant theories in the project report.
  - Evaluate and criticize various solutions in the project report.
  - In the report give their views on the project solution from an ethical perspective.
  - To produce an updated project specification and schedule with outcomes.

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## Grade 4

- For the grade 4 if the student is able to:
  - Solvé the project assignment in a way that cannot be made more effective in an obvious way, only by using conventional methods.
  - Show in the report that more information than what is used for finalizing the project was reviewed and screened.
  - Show that the project specification and schedule has been updated during the project.

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## Grade 5

- For the grade 5 required that the student is able to:
  - Take into account things that are outside the project description.
  - Validate the solution.
  - Show that the project specification and the schedule was followed in broad without any major changes.

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## Deadlines

- Assignment A: 9/11-2009
- Assignment B: 16/11-2009
- Assignment C: 23/11-2009
- Assignment D: 30/11-2009
- Assignment E: 14/12-2009
- Assignment F: 21/12-2009
- Project plan: 7/12-2009
- Project report: 10/1-2009
- Revision 1: 31/3-2009
- Revision 2: 31/5-2009

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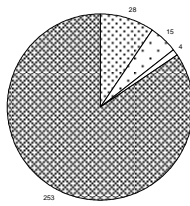
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## Student Time Budget

Tidsfördelning i timmar, enskild student



Preparation Laboratory Handwritten Own work

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2009



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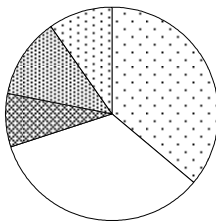
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## Course Time Budget

Moment, andel av kursbudget



Laboratory Preparation Handwritten Examination Own work

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## Course Literature

- Richard Petersen, "[Ubuntu: The Complete Reference](#)", ISBN-13: 978-0071598460 (available for free from ebrary)

or

- A. Hudson & P. Hudson, "[Ubuntu: Unleashed](#)", ISBN-13: 978-0672329937

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## Reference Literature

- [Building Embedded Linux Systems](#)
- [Linux Administration: A Beginner's Guide, Fifth Edition](#)
- [Linux: The Complete Reference](#)
- [Understanding The Linux Kernel](#)
- [Linux Command Line And Shell Scripting Bible](#)
- Aelen Frisch, "Essential System Administration: pocket reference", ISBN: 0-596-00449-4 (old, not Ubuntu)
- Arnold Robbins, "vi Editor: pocket reference", ISBN 1-56592-497-5
- Sander van Vugt, "Beginning Ubuntu LTS Server Administration: From novice to professional", ISBN 978-1-4302-1082-5 (advanced)
- ...

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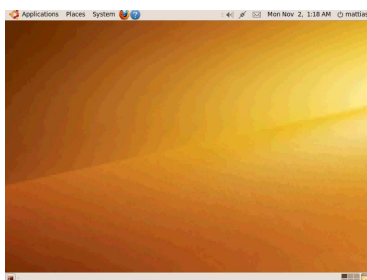
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## Demonstration of Ubuntu Use



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