System Administration (LTAT.06.003)

Introduction to course
Rules and Regulations

- System Administration Course (LTAT.06.003) does not have lectures, only this presentation will be recorded
- All lab sessions will be online, physical labs will not be held
- Course will be conducted online within slack
- Content for labs will be provided on the course webpage:
  - New content will be added on Mondays!
- Course official communication channel will be slack, to which everyone will receive an invite:
  - utsysadcourse2021.slack.com
  - Invites will be sent to emails provided by students in Study Information System (ÕIS), make sure the email you have provided is correct.
Passing The Course

- Labs give 50% of the final grade
- All labs must be completed (100%) **one week before coming to the exam** (all the lab tests should be OK to be eligible for the final exam)
- For passing the course student should get at least 51% in total (50% from labs and 50% from the exam)
- Rules regarding passing the course are set in stone and are for everyone to see in the Study Information System (ÕIS)
  - Search for the course with the course code: LTAT.06.003
- **This course imposes only one deadline. Labs must be completed ONE week before coming to the exam.** You can complete labs on your own schedule.
- There will be no intermediate tests or deadlines
Topics

1. Overview of the linux system (Linux Boot process, Linux kernel, Linux environment)
2. CentOS
3. Creating virtual hard drive, preparing OS, private cloud deployment, accessing OS over cloud management interface
4. Network Configuration, SSH, DNS, Mail server, Apache, File server ... and more if we have extra time
3. Security: securing services, private/public keys, certificates, authorities, firewall, NAT
4. Tracking and monitoring (form low level routines: top, htop, nmap, tcpdump, netstat, iostat, ... to higher level.)
5. Automation and orchestration (Ansible, Docker, Kubernetes...)
Code Of Conduct

- Lab related questions, getting help from TAs regarding your VMs - all goes through slack - group chat, general chat, direct messages.
- **Asking for help with a lab over email is not recommended (use slack) and will not be answered. Syllabus questions are OK**
- Teaching assistants will be available on slack following times:
  - Monday: 10:15 - 12:00  Sander Kuusemets, Rasmus Soome
  - Monday: 14:15 - 16:00  Rasmus Soome, Mait Tenslind
  - Wednesday: 8:15 - 10:00  Sander Kuusemets, Anders Martoja
  - Wednesday: 14:15 - 16:00  Ott Eric Oopkaup, Vladislav Tuzov
  - Thursday: 14:15 - 16:00  Anders Martoja, Vladislav Tuzov
  - Thursday: 16:15 - 18:00  Ott Eric Oopkaup, Mait Tenslind
Common sense

The following information is by no means imposed onto the students, just something the TAs would advise to follow, to relieve the examination period stress that usually occurs:

- Finish your labs before the next week’s content comes out
- When stuck with a lab problem - ask for help. There are three ways to utilise course slack. Ask from a wide audience in the #general chat. Ask from the people in your group #Group1, #Group2, #Group3 etc. or directly message your lab TAs.
  - TAs advise you to ask your course related questions from the #general chat, that way students who face or have faced the same problems can use slack for help and advice
- Google works wonders, the previous years’ experience shows that students underutilize it probably because they think the given course environment is somehow different from what you would get from other cloud provides e.g. Amazon Cloud, Google Cloud etc.
  - Everything taught in the System Administration course can be googled
- The labs will be time consuming, reserve appropriate amount of time for it beforehand
- Administrative info regarding the course will be sent via email and posted in slack
Important links

- Course webpage  https://courses.cs.ut.ee/2021/sa/spring
- Course slack     https://utsysadcourser2021.slack.com
- Course FAQ       https://courses.cs.ut.ee/2021/sa/spring/Main/FAQ
See you in slack!

utsysadcourse2021.slack.com