Computer Systems, B1-2 2021-22

Introduction

Troels Henriksen
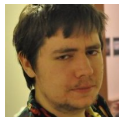
DIKU, September 6, 2021

Overall outline

Lectures

- Mondays 13:15-15:00
- Wednesdays 10:15-12:00

Michael Kirkedal Thomsen: Course root, Networks and Security

Finn Schirmer Andersen: Computer Architecture

Troels Henriksen: C programming, Operating Systems

David Gray Marchant: Network programming

Teaching Material

BOH Computer Systems: A programmer's approach, Randal E. Bryant and David R. O'Hallaron, Pearson, 3rd and Global Edition, ISBN 13: 978-1292101767

KR Computer Networking: A Top-Down Approach, James F. Kurose and Keith W. Ross, Pearson, 8th and Global Edition, ISBN 13: 978-1-292-40546-0 (This book will not be used before December)–7th edition is also acceptable

JG Modern C, Jens Gustedt, `http://icube-icps.unistra.fr/img_auth.php/d/db/ModernC.pdf`

?? Some notes and book chapters that will be made available through the detailed course schedule

BOH is (and KR will be) available at Academic Books at Panum (http://www.academicbooks.dk/ (Links to an external site.)) and Polyteknisk Boghandel at Biocenteret (http://www.polyteknisk.dk/ (Links to an external site.)).

TAs

TAs:

- Jens Kanstrup Larsen
- Magnus Joensen
- Henriette Hansen
- Jonas Reholt
- Lars Peter Jeppesen
- Jóhann Utne
- Joachim Fiil Larsen

TAs will gladly help with

- Group members
- The right way to the administration
- A fellow student that can answer questions (or help find the answers)

Exercises and Assignment Cafées

Exercises

- Mondays 15:15-17:00
- Wednesdays 13:15-15:00

Exercises are only for posted exercises. Work on the exercises as they will prepare you both for the exam and assignments.

Cafés

- Wednesdays 15:15-17:00
- Fridays 13:15-15:00

Cafés are primarily for help with assignments.

Details: https://github.com/diku-compSys/compSys-e2021-pub.
Also on Discord. See Absalon/Modules.

Groups

Size

2-3 student advised. 1 can be accepted but not recommended. More than 3 is only allowed is on special circumstances

- Sign up for classes with your group-mates on Absalon
- If you need one or more members
  - Look on announcements for details
  - Course ambassadors will facilitate

Assignments

- There are 7 assignment in total during the course with deadline roughly every week or second week (all Sundays). The assignments will be evaluated with points.
- Assignments will be awarded zero to 4 points.
- You are required to achieve at least 50 % of the total number of points (equal to 12).
- Also we will require that you achieve points in each the of topics of the course to ensure that you have touched all parts of the curriculum.
- Assignments are made to be solved in groups of 2-3 students, but you can also do them by alone.

Assignment rules

Each group must make their own solution.

This means

- You can talk with other people about the assignments: Teachers, TAs, other students, etc.

- You cannot share written code with other groups.
- You are not allowed to use code that you did not write yourself without proper citation.
- You cannot share written text with other groups.
- You are not allowed to use text of material without proper citation
  - This also includes material provided on the course.

Assignments vs. exercises

- Note! Both are equally important
- Assignments:
  - Seek to test learning goals that relates to implementation and development of computer systems.
  - Do not fully prepare you for the written exam.
- Exercises:
  - Help you understand the theoretical parts of the material.
  - Prepare you for part of the exam.

Tools

- C compiler – gcc
- C debugger – gdb, (MacOS lldb)
- Image for VirtualBox will be available
  - Special setup of VirtualBox if needed. Can get help at exercises
- You can also install most tools on you laptop
  - Linux: most available though apt
  - OS X: most available though Homebrew
  - Windows: Windows Subsystem for Linux

- Set up your tool chain
  - recommended using git to share code and reports in your group
  - Sign-up at GitHub today and apply for the *Student Developer Pack*
  - https://education.github.com/

- Tool-site is available on Absalon/Github

Exam

- Said to be: a 4-hour written exam; Jan 2022.
- Exact format is not fixed; It will *maybe* be ITX.
- The course syllabus is the exercises, assignments and reading material.
- Previous exams will available.

Questions?