Computer Security
SEGC-00 - Overview

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February 20, 2014
MO639/MC942

Summary

This course is about computer security, both from the network view as well as the machine, its OS and applications’ point of view. Students shall demonstrate ability in research and programming and shall acquire both overall comprehension and specific abilities.

Lecture and Office Hours

Lectures: 3:19–21, 5:21–23; Room: 352 (IC3.5)
Office hours: 3:18, 5:20; Room: 26
full mailing list (professor + TAs + students):
segc@lasca.ic.unicamp.br
instructors list (professor + TAs): segc-staff@lasca.ic.unicamp.br
Topics

- Introduction
- Basic Knowledge
- Network Security
- Protocol Analysis
- Network Defenses

Planned, but probably only on a follow-up course:

- Machine Defenses
- Application Security
- Web Vulnerabilities
References

- Nakamura-deGeus - Segurança de Redes em Ambientes Cooperativos, Novatec, 2010 (“more or less” 3rd ed)
- Zwicky-Cooper-Chapman - Building Internet Firewalls, 2nd ed, 2000
- Davis-Bodmer-LeMasters - Hacking Exposed: Malware and Rootkits, 1st ed, 2009
Prerequisites

- Computer Networks, strong emphasis on TCP/IP
- C, Python, Assembly Programming
- Linux system level knowledge
- Autonomy to research methods/solutions
Evaluation

- \( n \) written exams: \( 2/4 \) of grade
- \( p \) practical experiences: \( 1/4 \)
- \( k \) extra assignments: \( 1/4 \)

Note: the extra assignments factor on the grade may vary in the 0–100% range.

- Exams are individual: plagiarism not accepted
- Practical experiences in teams of 1–2 students