CPSC 525: Introduction and Mindset
A Culture Shock

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Introduction and Announcements (5 minutes)
→ Prof. Locasto
Course Overview and Structure (30 minutes)
→ topics
→ CPSC 525 wiki
→ Piazza
“Hacker Curriculum” talk from SIGCSE 2010 (15 minutes)
Overview of the HtA Lab Manual (15 minutes)
Ripped From the Headlines (15 minutes)
This is a course on *computer* security. Because of “school”, we will limit our discussion mostly to systems rather than networks.

Security Mindset: How to think about security?
Security Models: What are the principles of protection?
Langsec: Language-Theoretic Security
Some Robert Morris quotes:

“Never underestimate the attention, risk, money and time that an opponent will put into reading traffic.”

“Rule 1 of cryptanalysis: check for plaintext”

“The three golden rules to ensure computer security are: do not own a computer; do not power it on; and do not use it.”
March 25, 2008

The Security Mindset

Uncle Milton Industries has been selling ant farms to children since 1956. Some years ago, I remember opening one up with a friend. There were no actual ants included in the box. Instead, there was a card that you filled in with your address, and the company would mail you some ants. My friend expressed surprise that you could get ants sent to you in the mail.

I replied: "What's really interesting is that these people will send a tube of live ants to anyone you tell them to."

Security requires a particular mindset. Security professionals -- at least the good ones -- see the world differently. They can't walk into a store without noticing how they might shoplift. They can't enter a room without wondering how a thief might break in. They can't look at a computer network without seeing potential ways to exploit it. They can't read a newspaper article without thinking of ways to use it for their own purposes.


www.hackercurriculum.org
What is Security?
Readings (and videos) are posted on the wiki. Read them for next class.