—

SECURITY (COMP0141):
INTRODUCTION AND WELCOME!

UCL

MODULE GOALS

—

The security mindset

• How to (abstractly) think about security?

• Vulnerabilities vs. threats vs. capabilities

• Social, economic and political incentives

Technical aspects

• Purpose and limitations of security mechanisms

• Vulnerabilities, attacks, and defenses

2

We'll cover technical topics, but security isn't just a technical issue

Week 1: Security policies
Week 2: Security principles
Week 3: Confidentiality
Week 4: Integrity
Week 5: Availability

Week 6: Human-centred security
Week 7: Authentication
Week 8: Access control
Week 9: Network security
Week 10: Web security

MODULE OVERVIEW

Lectures: Videos and slides will be posted online on Tuesdays

Tutorials: Led by TAs and conducted Wednesdays 11-13 (recorded)
  • Exercises available Mondays and solutions on Fridays
  • There is no tutorial this week!

Website: https://moodle.ucl.ac.uk/course/view.php?id=9307

Assessment: 100% exam in Term 3

Quizzes: Weekly (unmarked!) 3-6 question quiz to confirm your understanding of the lecture material

Tutorials will follow the lecture material by a week (so the tutorial in week 2 will cover the material from week 1, etc.)

Will link to relevant chapters from textbook on Moodle

OTHER RESOURCES

The Internet is vast! Information is not always trustworthy, but still good to read lots of news articles, Wikipedia, etc.

Will link to (free) chapters from Ross Anderson's textbook "Security Engineering" when appropriate

http://www.cl.cam.ac.uk/~rja14/book.html

Slides and Moodle page will also have links to papers and articles

5

"HACKING"

We will learn about attacks in this module

It is good to study and experiment with attacks to understand how they work, but only IN THE LAB!

It is not acceptable/ethical/legal to attack live systems

The Information Security research group runs a hacking seminar and the link to participate will be posted on Moodle

WITH GREAT
POWER
COMES GREAT
RESPONSIBILITY

6