# Network Security Laboratory Session 1

INTRODUCTION & GNS3 LAB CONFIGURATION

### About me

- Dott. Francesco Pacenza
- ► Researcher at University of Calabria
- Master Degree in Computer Science, curriculum Network and Security
- Office Hours: by appointment, on Microsoft Teams
- Email: francesco.pacenza@unical.it
- Website: francescopacenza.it

## Laboratory course overview – part 1

- GNS3 Laboratory configuration
- Symmetric Cryptography
  - Example of symmetric cryptography / Exercises
- Asymmetric Cryptography (SSL)
  - Self-signed Certificate
  - Authentic Certificate with Let's Encrypt
- WEP and WPA Cracking
  - With dictionary and rainbow tables

## Laboratory course overview – part 2

- Layer 2 attacks
  - MAC Flooding / ARP poisoning MAC spoofing / MITM with L2 attacks
- ► Layer 3 attacks
  - IP Spoofing / DHCP Spoofing / DNS Spoofing / Phishing
- SSL Strip
- ▶ 802.1x attacks
- Password Storage attacks

## Today's lecture

- Install and configure GNS3 Laboratory
- ▶ This laboratory will be used on the course for most of the exercises
- In case of need, download the GNS3 lab configuration guide on the course website along with the hosts configuration files

Let's start together