

Security fundamentals



ECTS 5 crédits



Hourly volume

77h

Introducing

Description

- deploying high level security tools such as PKI, VPN, IPSEC tools or low-level security tools such as openssl, and choosing purposely the parametrisation of such tools

Objectives

At the end of this module, the student will have understood and be able to explain:

- main concepts of operating systems, TCP/IP networks and language C and assembling programming;
- main concepts of dependability
- main concepts of cryptography

The student will be able to:

- describe the main components of an information
- describe the main principles of the network protocols, analyse network traces and understand the flow encapsulation
- design and implement basic and advanced language C programs as well as basic assembling programs
- understand the different issues of the safety and security domains and correctly use the associated terminology
- distinguish the different cryptographic tools, understand when and how choose a specific tool, its capabilities and weaknesses
- find the main international cryptographic standards, and understand their content

Évaluation

L'évaluation des acquis d'apprentissage est réalisée en continu tout le long du semestre. En fonction des enseignements, elle peut prendre différentes formes : examen écrit, oral, compte-rendu, rapport écrit, évaluation par les pairs...

Practical info

Location(s)

Toulouse

