

Computer Security

Pr. Nouredine Chikouche

nouredine.chikouche@univ-msila.dz

<https://sites.google.com/view/chikouchenouredine>

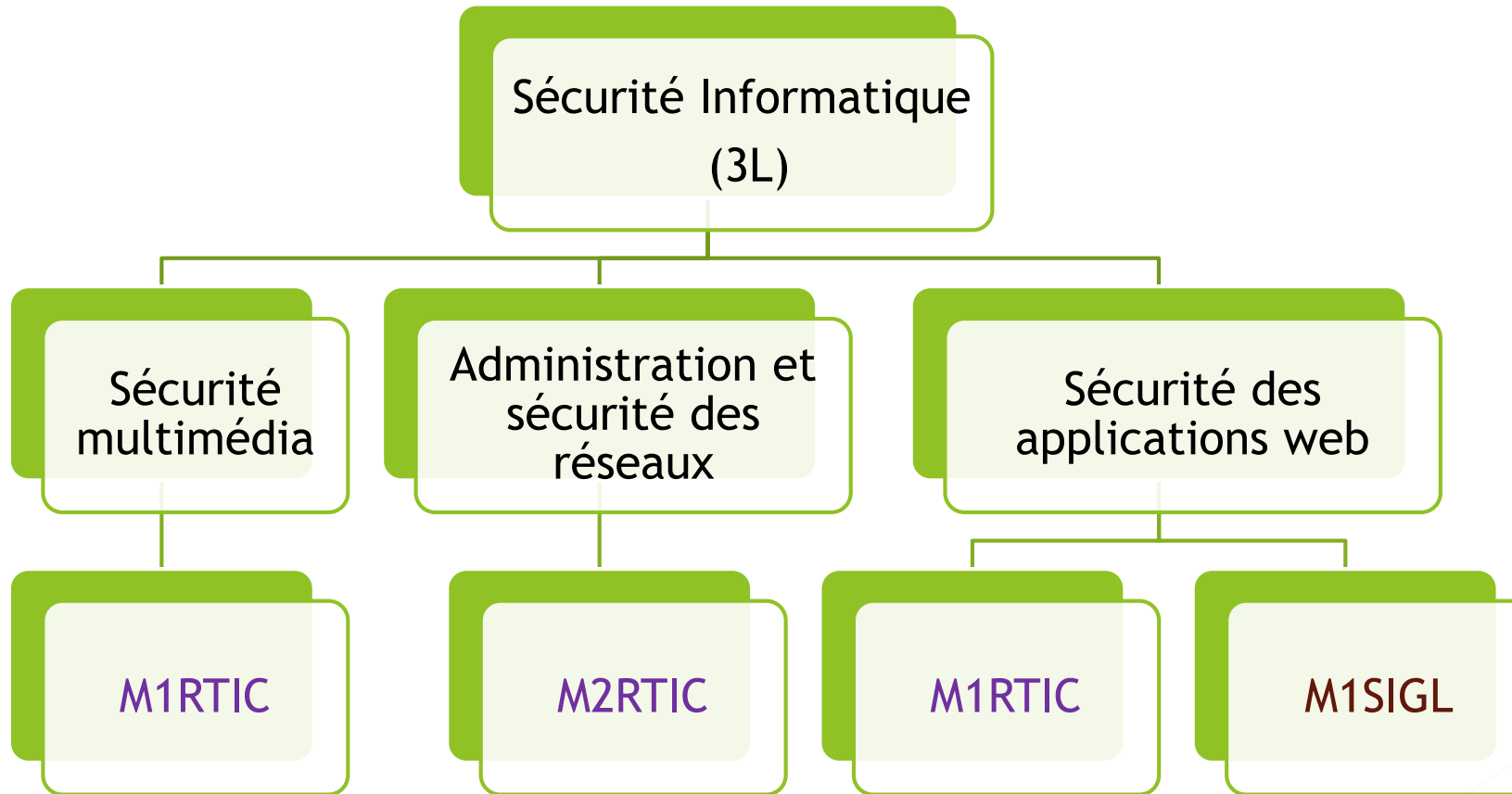
Computer Security

- Level: 3rd Year Bachelor's Degree in Computer Science (SI+ISIL)
- Objectives of teaching: This subject allows students to acquire skills to ensure the security and proper functioning of computer systems.
- Unity: UEF1
- Credits: 5
- Coefficient: 3
- Evaluation method: TD 40% Exam 60%
- TD: Interrogation: 10, Attendance : 5, Participation: 5

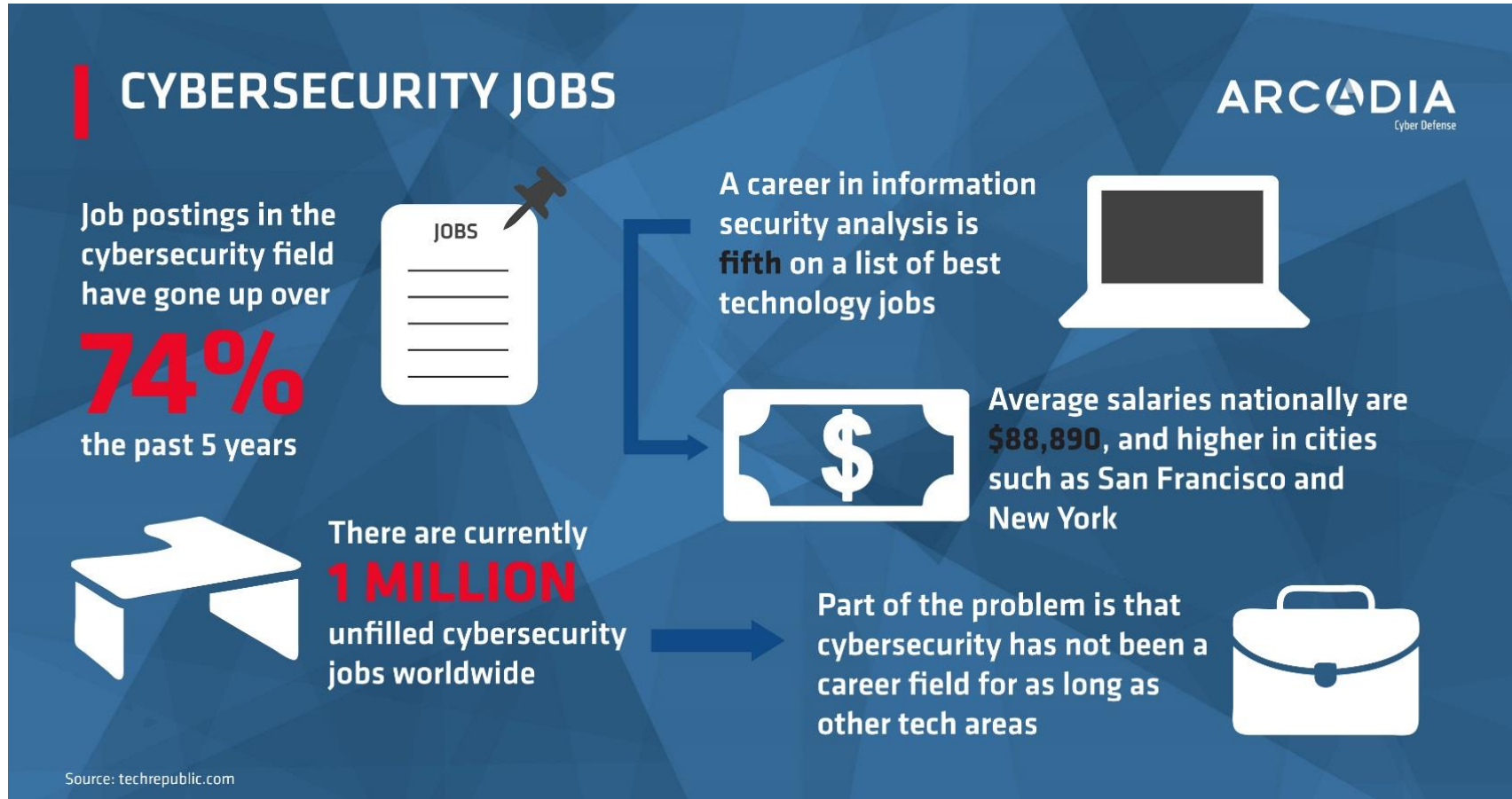
Content

- ▶ Basic concepts of security
- ▶ Classical Cryptography
- ▶ Modern Cryptography: symmetric
- ▶ Modern Cryptography: asymmetric
- ▶ Hash functions
- ▶ Digital Signature
- ▶ Digital Certificat
- ▶ Threats in computer science
- ▶ Methods of defense

Relationship of this course with other courses



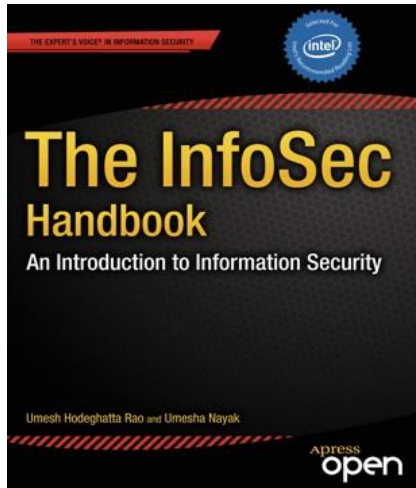
Motivation



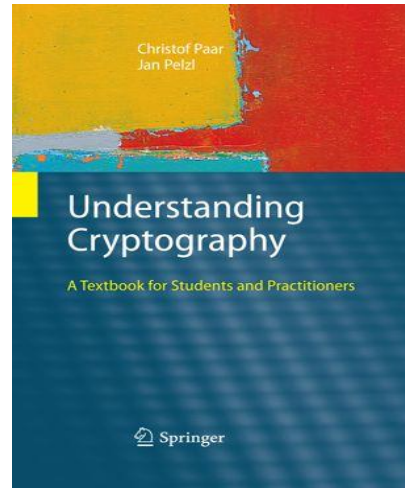
Motivation



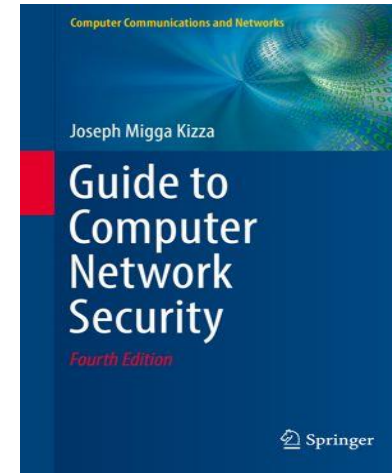
References (books)



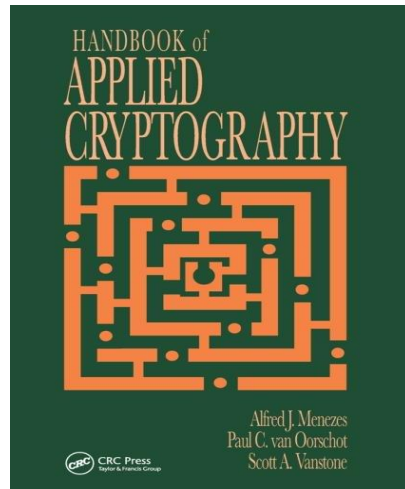
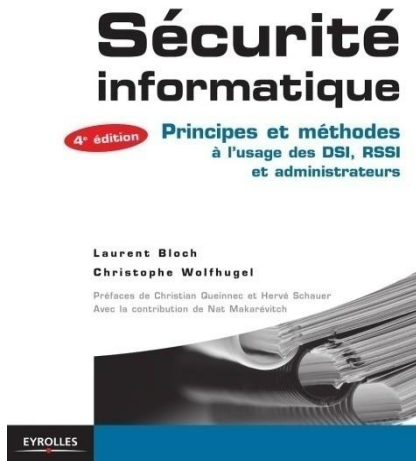
[Link](#)



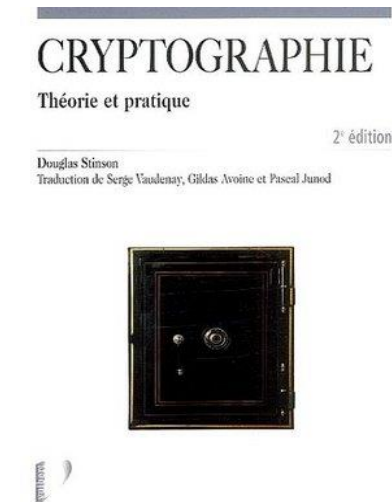
[Link](#)



[Link](#)



[Link](#)



Webography

- ▶ [The Foundations of Cryptography](#)
- ▶ [Computer Security and Cryptography at MIT Open Course Ware](#)
- ▶ [An Introduction to Information Security](#)
- ▶ [Computer Security and Networks](#)
- ▶ [Network Security Open Learn](#)
- ▶ [Pierre-Louis Cayrel's website](#)
- ▶ [Course and tutorials For learn the security computer science\(Fr\)](#)
- ▶ [PascalBoyer, Cryptography \(presentation\)](#)

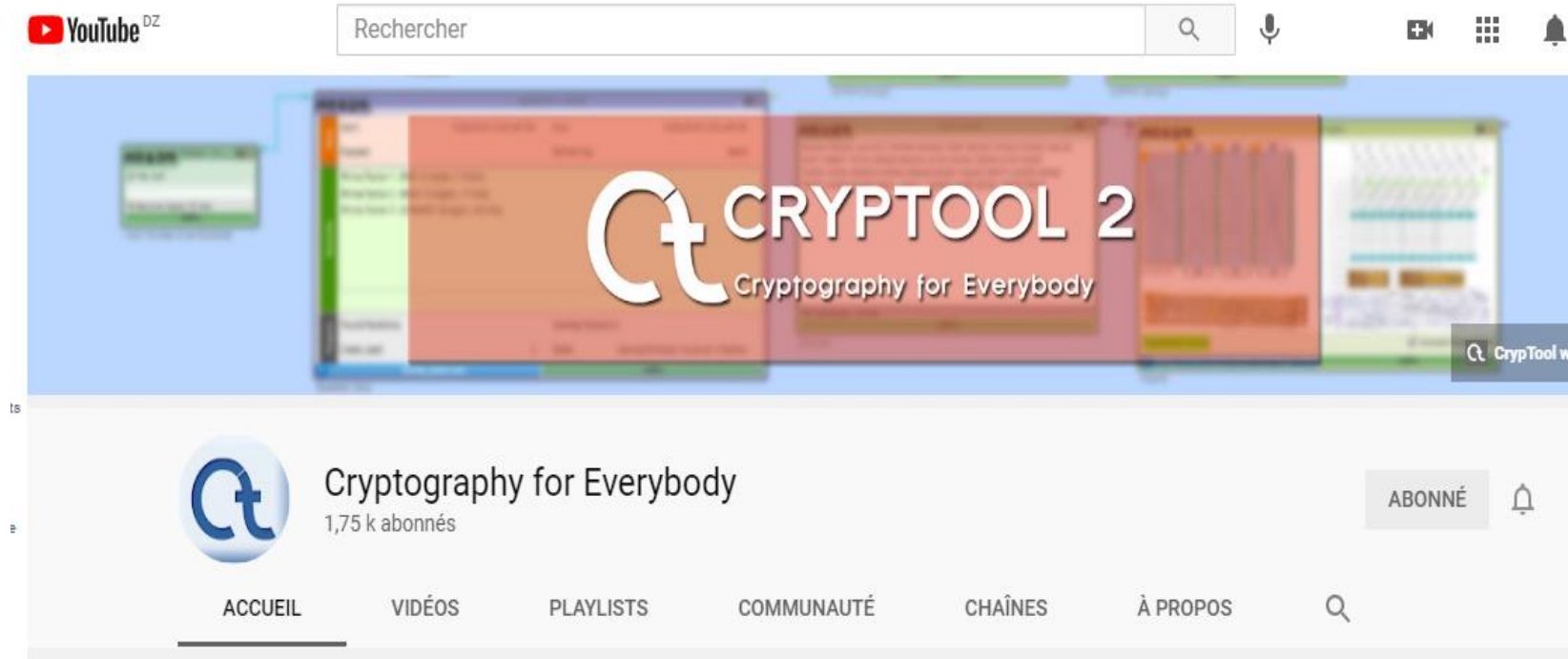
CrypTool 2 Platform

- ▶ **CrypTool 2** is an open source e-learning Platform of cryptography and cryptanalysis.
- ▶ It is developed using C++, C#, and Java.
- ▶ More than 400 algorithms implemented.
- ▶ Downloading the CrypTool 2:

<https://www.cryptool.org/en/ct2/>



YouTube videos



YouTube channel: https://www.youtube.com/channel/UC8_FqvQWJfZYxcSoEJ5ob-Q

Links of Moodle



ISIL



SI