

Welcome to Cybersecurity 360°

The next three weeks



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The Instructor

- MSc Cybersecurity & Digital Forensics
 - University of Westminster, London, UK
 - Thesis - Forensic Analysis of Containers
- Work in the field
 - ISO27K Certification
 - Network Infrastructure
- Work in the lab
 - Security Research
 - Cloud Orchestration

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*Mechanisms for
protecting
sensitive
data in
healthcare
services*

**Advanced Secure Cloud Encrypted Platform for Internationally
Orchestrated Solutions in Healthcare**

The vision of ASCLEPIOS is to maximize and fortify the trust of users on cloud-based healthcare services by developing mechanisms for protecting both corporate and personal sensitive data. While researchers have developed many theoretical models that could enhance the security level of healthcare services, only a rudimentary set of techniques are currently in use. ASCLEPIOS is exploiting this gap by using by utilizing several modern cryptographic approaches to build a cloud-based eHealth framework that protects users' privacy and prevents both internal and external attacks.

Follow @Asclepios_H2020

ASCLEPIOS

Asclepios Project @Asclep
#CyberSecurity Modern F
#AttributeBasedEncryption
#SymmetricSearchableEn
#SGX. The paper
<https://t.co/YIHRD31Ht> by
Alexandros Bakas and Ant
Michalas, just got accepted
SecureComm'19, 23-25 Oc

<https://www.asclepios-project.eu/>

The Books

CompTIA Security+ SY0-501
Darril Gibson

All-in-One CISSP
Shon Harris, Fernando Maymi

Online (FREE)
Security Engineering
Ross Anderson



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The Evaluation

- Week 1:
 - In-class exercises
- Week 2:
 - Mid-term Written
- Week 3:
 - Group Presentation

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The Content

- Week 1:
 - Introduction to Security
 - Cryptography
 - Network Engineering
- Week 2:
 - Data Policy
 - Red Teams
 - The Business of Security
- Week 3:
 - Blue Teams
 - Forensics
 - Jobs & Pathways

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Cryptography

- All things:
 - Code
 - Key
 - Cipher
 - Encryption
 - Hash
 - Signature
 - Currency
 - Blockchain
 - And more...

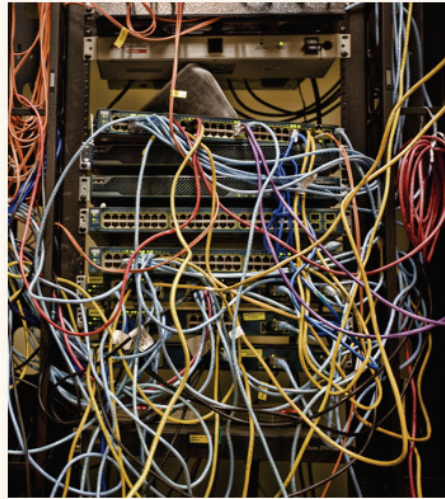


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"Enigma Crypto Machine" by Latente  www.latente.it is licensed under [CC BY-SA 2.0](https://creativecommons.org/licenses/by-sa/2.0/)

Networks

- The Cyber of Cybersecurity
- An intro to networking & the internet
- Scanning & Sniffing



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"Their dream is your nightmare." by david takes photos is licensed under CC BY-NC 2.0

Cyber Security (in practice)

- Red Teams
 - Passive gathering
 - Attack vectors
 - Pen testing
 - Exploit development
- Blue Teams
 - Logs
 - Patches
 - Honeypots
 - Intrusion Detection

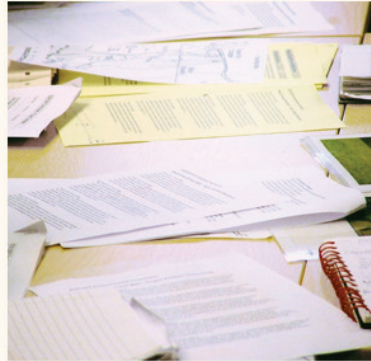


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Business of Security

- Policy management
- Work culture
- GDPR

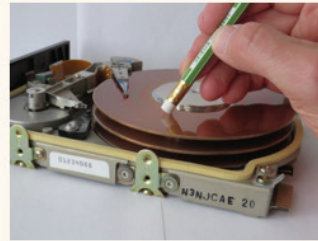


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Digital Forensics

- Data recovery
- Mobile phone forensics
- Network forensics
- Laws



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"Erasing a Hard Disk" by IBM Research is licensed under CC BY-ND 2.0

CAUTION

Disclaimer

- Different colours of hats
 - White, Grey, Black
- Pick your colour responsibly



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