DECAMP
Open Distributed European Virtual CAMPus on ICT Security

A brand new offer of online courses on ICT Security

Co-funded by the Erasmus+ Programme of the European Union
The need for ICT Security professionals

- With an increasingly complex and networked infrastructure, the difficulty of achieving secure networks is growing exponentially.
- Consequently, the demand for skilled network security professionals is accelerating dramatically.
- ICT security has reached a dimension which definitely necessitates joint international efforts, supported by combined know-how and expertise.

DECAMP
Open Distributed European Virtual CAMPus on ICT Security caters to this need!
What is DECAMP?

A strategic partnership of European universities, sharing a set of online classes on ICT security, each based on that institution’s specific expertise.

- offers all students of the participating universities the chance to attend one or more classes on specific areas of ICT security that are not covered at their home university
- encourages collaborative work between students from different universities and countries
- allows students to access the classes from home or their local university, at convenient times, no conflicts with regular classes
- final written exams are held simultaneously in all universities for each class
- ECTS credits earned on each class are automatically accepted by the students’ home university programs

Basic notions of information security and cryptography are a prerequisite for all classes.
A strategic partnership

DECAMP
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Uniting EU students!

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Metropolia University
Web application security

Munich University of Applied Sciences
Secure network management

University of South Wales
Computer forensics

University of Cantabria
Secure cloud computing

University of Padova
Wireless security

Polytechnic University of Bucarest
e-Health security
All six courses feature . . .

Same course structure 6 ECTS credits,

Blended Learning Q&A sessions, demos, case studies by industry experts, interactive discussions

Virtual laboratory platform for on line lab experiences and reports

Weekly assignments short problems and questions, virtual laboratory tasks

Collaborative and cumulative project to be carried out by teams of 2-3 students and presented in a form of a wiki, a presentation or a portfolio.

Same evaluation procedure laboratory 30% +
project 20% +
discussion 10% +
written exam 40% =

final grade 100%
Secure Network Management and Computer Networks

*Focuses on practically oriented concepts to secure local and remote management of network components*

**What you will study**

*Secure management protocols for the configuration of network devices. Types of attacks on network components. Concepts and tools for network and management protection.*

**What you will do**


**What you need to know**

*Web programming (HTML, JavaScript), Java/Python programming, data structures.*

*Spring: 20 Mar 2018 – 27 Jun 2018*
Applied Web Application Security: Attacks and Defense

Focuses on threats to the WEB applications and their clients

What you will study
Attack vector and their combined impact on security. Practical security protection methods on multiple implementation platforms. Platform specific weaknesses.

What you will do
WEB application stress testing using penetration testing tools. Revealing application vulnerabilities and security misconfigurations.

What you need to know
Web programming (HTML, JavaScript), Java/Python programming, data structures.

Fall: 16 Oct 2017 – 29 Jan 2018
Secure Cloud Computing

*Presents the main concepts of Cloud Computing, risks, interoperability, standards and security*

**What you will study**

*Threats to Cloud computing such as abuse and nefarious use, data leakage, service and traffic hijacking. Current methods and tools used for protection of Cloud computing.*

**What you will do**

*Penetration testing of cloud services, exploiting, privilege escalation, DoS. Securization, private cloud environment, firewalling, intrusion detection.*

**What you need to know**

*Computer networks, Java programming, data structures*

*Spring: 6 Feb 2018 – 15 May 2018*
Security of e-Health Systems

*Presents the architecture and interoperability of e-Health applications as well as the security of e-Health systems*

**What you will study**

e-Health standards, interoperability and security issues. Medical data privacy, sensitive data access control policies and protection methods

**What you will do**

Attacks on WiFi connections between medical devices, securing a mobile medical network using biometric authentication.

**What you need to know**

Computer networks, network security, programming and databases.

*Spring: 20 Feb 2018 – 29 May 2018*
Wireless Network Security

Introduces security solutions that can be deployed at different layers in wireless and mobile networks

What you will study

Secure localization, location privacy, secure routing, sensor networks security, physical layer security. Security in WiFi, WiMax, LTE, UMTS

What you will do

Android security, mobile network exploits. Secure routing. Physical layer secrecy, jamming rejection, GNSS spoofing and detection

What you need to know

Wireless digital communications, computer and communication networks, probability and statistics

Fall: 16 Oct 2017 – 29 Jan 2018
Applied Computer Forensics and Crime Investigation

The course content mirrors a typical forensic investigation

What you will study
A wide range of concepts and applied techniques that will involve identifying, securing and conducting the forensic extraction of data from a suspect digital storage device. Standards, legal aspects and ethics

What you will do
Lab experiments using a virtual lab.

What you need to know
Computer architecture, operating system, programming, computer networking, data structures

Spring: 5 Mar 2018 – 11 Jun 2018
What is the status of DECAMP?

▷ Classes are hosted on the offering university Moodle platform.
▷ Students can access the host university Moodle through their home university Moodle authentication page.
▷ In this first rollout year, the following number of students took DECAMP classes from universities other than their own:
  - 85 students took at least one class
  - 16 students are from University of Padova, from the Computer Engineering or Telecommunication Engineering course programs
  - 24 students took two classes or more
▷ All classes have ended, all exams have been given and graded, grades have been (or are being) converted in the local students’ record.
For further information...

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▶ visit the DECAMP website:

http://mydecamp.eu/