UNIVERSITÀ DI PISA

NETWORK SECURITY

FABRIZIO ENRICO ERMINIO BAIARDI

Academic year	2019/20
Course	COMPUTER SCIENCE
Code	303AA
Credits	9

Modules	Area	Type	Hours	Teacher(s)
ICT RISK ASSESSMENT	INF/01	LEZIONI	72	FABRIZIO ENRICO ERMINIO BAIARDI

Learning outcomes

Knowledge
Discover vulnerabilities of ICT system Discover the elementary attacks enabled by these vulnerabilities Run a Penetration Test Evaluate and Manage the risk of ICT system Design and deploy countermeasures to manage the risk
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Assessment criteria of knowledge
The student will be assessed on his/her demonstrated ability to discuss the main course contents using the appropriate terminology. - During the oral exam the student must be able to demonstrate his/her knowledge of the course material and be able to discuss the reading matter thoughtfully and with propriety of expression.
Methods:

- Final essay
- Laboratory report
- Oral report

Further information:
The student can select as a final exam either a seminar or some project work. In the latter case, several students may be involved in the projects
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Teaching methods

Delivery: face to face
Attendance: Advised
Learning activities:

- attending lectures
- participation in seminar
- preparation of oral/written report
- participation in discussions
- individual study
- Laboratory work

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Syllabus

The basic notions to evaluate and improve the security of any ICT system: Threat, threat model, vulnerability, attack, complex attack, countermeasure, risk, risk assessment Resiliency, robustness, cost effectiveness Differences between safety and reliability. Peculiarities of security of ICT systems Cloud Computing: definition and enabling technologies Security Problems of Cloud Computing Challenging Security Issues in Cloud Computing

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Bibliography

Security Engineering by Ross Anderson is a recommended but not mandatory reading.
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